

Liftcrane Jib Capacities

Jib No. 134 on
 Boom No. B10:350
 75,200 lb Crane Counterweight
 0 lb Carbody Counterweight
 360 Degree Rating

MLC150-1 SERIES 1



LIFTING CAPACITIES: Chart supplements Boom Capacity chart **No. 9818-A**. Lifting capacities for various boom lengths, jib lengths, and jib operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities must be reduced by applicable deducts.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves is considered part of 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 on a firm, level, and uniformly supporting surface. Refer to Boom Rigging **No. 80117858**, Jib Rigging **No. 80117860**, Wire Rope Specifications chart **No. 9841-A**, Counterweight Arrangements chart **No. 9828-A**, and Wind Conditions chart **No. 9842-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to the Operator Manual for operating guidelines.

MACHINE TRAVEL: Machine to travel on a firm, level, and uniformly supporting surface. Boom must be within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specifications chart **No. 9840-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, 48 in. treads, 17 ft 5 in. gantry, 10 part boom hoist reeving, boom straps, 75,200 lb crane counterweight, and 0 lb carbody counterweight.

Refer to Tables 1 and 2 for raising ability with the maximum weight of all load blocks, hooks, weight ball, slings, and hoist lines beneath boom and jib point sheaves. For block weights shown with #, load blocks, hooks, weight ball, and slings must remain on ground until combined weights are within rated capacity of chart. Raising is not permitted in shaded areas of table.

Caution: Combined weight beneath boom and jib point sheaves must not exceed block weight shown. Total weight beneath jib point must not exceed 2,000 lb.

Table 1

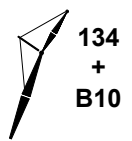
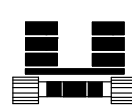
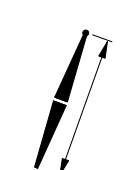
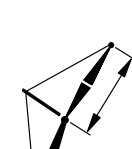
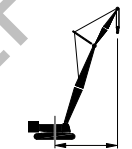
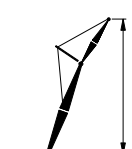
Over End or Side of Crawlers						
Boom Length (ft)	Jib No. 134					
	30.0 ft	40.0 ft	50.0 ft	60.0 ft	70.0 ft	80.0 ft
	Block Weight (lb)					
88.6	7,700	7,700	7,700	7,700	7,700	7,700
98.4	7,700	7,700	7,700	7,700	7,700	7,600
108.3	7,700	7,700	7,700	7,700	7,300	6,500
118.1	7,700	7,700	7,700	6,800	6,100	5,400
128.0	7,700	7,200	6,400	5,700	5,000	4,400
137.8	6,600	5,900	5,200	4,500	3,900	3,400
147.6	5,400	4,800	4,100	3,400	2,700	#
157.5	3,800	3,100	2,400	#	#	#
167.3	2,200	#	#	#	#	Raising Not Permitted
177.2	#	#				
187.0						
196.9						

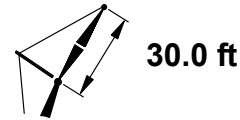
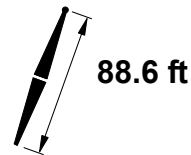
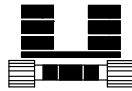
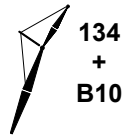
Table 2

Over End of Blocked Crawlers						
Boom Length (ft)	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	7,700	7,700	7,700	7,700	7,700	7,700
98.4	7,700	7,700	7,700	7,700	7,700	7,600
108.3	7,700	7,700	7,700	7,700	7,300	6,500
118.1	7,700	7,700	7,700	6,800	6,100	5,400
128.0	7,700	7,200	6,400	5,700	5,000	4,400
137.8	6,600	5,900	5,200	4,500	3,900	3,400
147.6	5,400	4,800	4,100	3,500	3,000	3,000
157.5	4,100	3,500	3,000	3,000	3,000	3,000
167.3	3,000	3,000	3,000	3,000	2,300	#
177.2	3,000	2,700	#	#	#	#
187.0	#	#	#	#	Raising Not Permitted	
196.9	#	#				

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

Explanation of Symbols

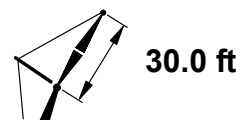
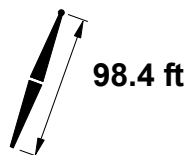
	Jib No. 134 + Boom No. B10:350
	Crane Counterweight + Carbody Counterweight
	360 Degree Rating
	Boom Length
	Jib Length
	Jib Offset Angle
	Operating Radius (see page 1)
	Boom Angle (see page 1)
	Jib Point Elevation (see page 1)
	Lifting Capacities (see page 1)

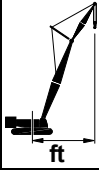
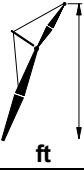


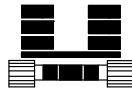
	5°			15°			25°			
	ft	o	ft	lb	ft	o	ft	lb	ft	
30	79.0	124.9	59,200							30
32	78.0	124.4	59,200							32
34	77.0	123.9	59,200							34
36	76.0	123.4	59,200							36
38	75.0	122.8	59,200	78.5	122.6	58,700				38
40	74.0	122.2	59,200	77.5	122.0	58,300				40
41	74.0	122.2	59,200	76.5	121.4	57,800				41
42	73.5	121.9	59,200	75.5	121.0	57,600	78.6	119.2	41,400	42
44	73.0	121.5	59,200	75.5	120.7	57,400	78.0	118.9	40,900	44
46	72.0	120.9	59,200	74.5	120.0	57,000	77.0	118.2	39,900	46
48	71.0	120.1	59,200	73.5	119.3	56,600	76.0	117.4	39,000	48
50	70.0	119.4	57,900	72.5	118.5	56,200	74.9	116.7	38,100	50
55	69.0	118.6	54,700	71.4	117.7	55,500	73.9	115.8	37,300	55
60	66.4	116.4	47,900	68.8	115.5	48,600	71.2	113.6	35,400	60
65	63.8	113.9	42,400	66.2	113.0	43,000	68.5	111.1	33,700	65
70	61.0	111.1	37,900	63.4	110.2	38,400	65.7	108.2	32,200	70
75	58.2	108.0	34,100	60.6	107.1	34,600	62.8	105.0	30,900	75
80	55.4	104.6	30,900	57.7	103.6	31,400	59.9	101.5	29,700	80
85	52.4	100.8	28,200	54.7	99.7	28,600	56.8	97.5	28,700	85
90	49.2	96.5	25,800	51.5	95.4	26,100	53.5	93.0	26,400	90
95	46.0	91.7	23,700	48.2	90.5	24,000	50.1	88.0	24,200	95
100	42.5	86.3	21,900	44.6	85.1	22,100	46.4	82.4	22,300	100
105	38.7	80.1	20,200	40.8	78.8	20,400	42.5	75.9	20,500	105
110	34.6	73.1	18,700	36.6	71.6	18,900	38.1	68.3	19,000	110
114	30.0	64.7	17,400	31.9	63.0	17,500	33.0	59.2	17,500	114
115	25.7	56.7	16,400	27.0	54.5	16,500	28.2	50.2	16,500	115
				26.2	52.3	16,200				

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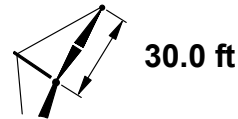
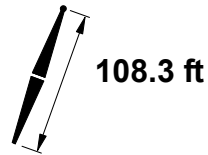
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	5°			15°			25°			
 ft	 °	 ft	 lb	 °	 ft	 lb	 °	 ft	 lb	 ft
32	78.9	134.5	59,200							32
34	78.0	134.0	59,200							34
36	77.1	133.5	59,200							36
37	76.5	133.3	59,200	79.0	132.5	58,700				37
38	76.2	133.0	59,200	78.5	132.2	58,500				38
40	75.3	132.5	59,200	77.6	131.6	58,000				40
42	74.4	131.9	59,200	76.7	131.0	57,600	79.0	129.2	41,800	42
44	73.4	131.2	59,200	75.7	130.4	57,200	78.1	128.5	40,900	44
46	72.5	130.6	59,200	74.8	129.7	56,800	77.1	127.9	40,000	46
48	71.6	129.9	57,600	73.9	129.0	56,500	76.2	127.1	39,100	48
50	70.7	129.2	54,400	72.9	128.3	55,200	75.2	126.4	38,300	50
55	68.3	127.2	47,500	70.5	126.3	48,300	72.8	124.3	36,400	55
60	65.9	124.9	42,100	68.1	124.0	42,700	70.3	122.0	34,800	60
65	63.4	122.4	37,500	65.6	121.5	38,100	67.8	119.5	33,300	65
70	60.9	119.6	33,800	63.1	118.7	34,300	65.2	116.6	32,000	70
75	58.3	116.5	30,600	60.5	115.6	31,000	62.6	113.4	30,800	75
80	55.7	113.1	27,800	57.8	112.1	28,200	59.8	109.9	28,600	80
85	52.9	109.4	25,400	55.1	108.3	25,800	57.0	106.0	26,100	85
90	50.1	105.2	23,300	52.2	104.1	23,600	54.0	101.7	23,900	90
95	47.1	100.6	21,500	49.2	99.4	21,700	50.9	96.9	22,000	95
100	43.9	95.4	19,800	46.0	94.2	20,100	47.7	91.6	20,300	100
105	40.6	89.7	18,300	42.6	88.4	18,500	44.2	85.5	18,700	105
110	37.0	83.2	17,000	38.9	81.8	17,200	40.3	78.6	17,300	110
115	33.0	75.7	15,800	34.9	74.1	15,900	36.1	70.6	16,000	115
120	28.6	66.8	14,600	30.3	65.1	14,700	31.2	61.0	14,800	120
123	25.6	60.6	14,000	27.0	58.5	14,100	27.8	54.0	14,100	123
124				26.0	56.3	13,900				124



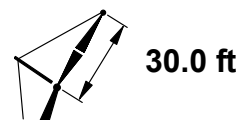
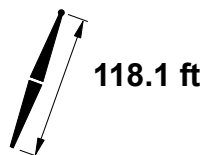
75,200 lb
+
0 lb



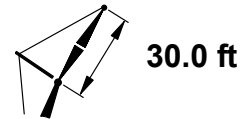
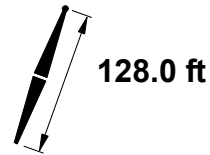
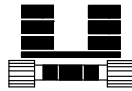
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
34	78.9	144.1	59,200							34
36	78.0	143.7	59,200							36
38	77.2	143.2	59,200							38
39	76.5	142.9	59,200	78.9	142.1	58,300				39
40	76.3	142.7	59,200	78.5	141.8	58,100				40
42	75.5	142.1	59,200	77.6	141.3	57,700				42
44	74.6	141.5	59,200	76.8	140.7	57,300	79.0	138.8	41,800	44
46	73.8	140.9	59,200	75.9	140.1	57,000	78.1	138.2	41,000	46
48	72.9	140.3	57,400	75.1	139.4	56,700	77.2	137.5	40,100	48
50	72.1	139.6	54,100	74.2	138.7	55,000	76.3	136.8	39,300	50
55	69.9	137.8	47,300	72.0	136.9	48,100	74.1	134.9	37,500	55
60	67.7	135.7	41,800	69.8	134.8	42,500	71.8	132.8	35,800	60
65	65.4	133.4	37,300	67.5	132.5	37,900	69.5	130.5	34,400	65
70	63.2	130.9	33,500	65.2	129.9	34,100	67.2	127.9	33,000	70
75	60.8	128.1	30,300	62.9	127.1	30,800	64.8	125.0	31,300	75
80	58.4	125.0	27,600	60.4	124.0	28,000	62.3	121.9	28,400	80
85	56.0	121.6	25,200	58.0	120.6	25,600	59.8	118.4	25,900	85
90	53.4	117.9	23,100	55.4	116.9	23,400	57.2	114.6	23,700	90
95	50.8	113.9	21,200	52.7	112.8	21,500	54.5	110.4	21,800	95
100	48.1	109.4	19,600	50.0	108.3	19,800	51.6	105.8	20,100	100
105	45.2	104.5	18,100	47.1	103.3	18,300	48.7	100.6	18,500	105
110	42.2	99.0	16,700	44.0	97.8	17,000	45.5	94.9	17,100	110
115	38.9	92.9	15,500	40.7	91.6	15,700	42.1	88.5	15,800	115
120	35.5	86.0	14,400	37.2	84.6	14,600	38.5	81.3	14,700	120
125	31.7	78.1	13,400	33.3	76.5	13,500	34.4	72.8	13,600	125
130	27.4	68.9	12,500	28.9	67.0	12,500	29.7	62.6	12,600	130
131	26.0	66.7	12,300	27.0	64.7	12,400	28.6	60.3	12,400	131
132	25.4	64.6	12,100	26.0	62.5	12,200				132
133				25.9	60.2	12,000				133

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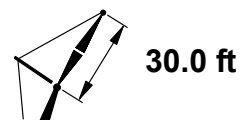
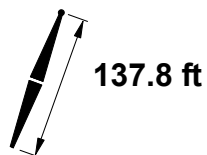
	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
36	78.8	153.8	59,200							36
38	78.0	153.3	59,200							38
40	77.3	152.8	59,200							40
41	76.5	152.6	59,200	78.9	151.7	57,800				41
42	76.5	152.3	59,200	78.5	151.5	57,700				42
44	75.7	151.8	59,200	77.7	150.9	57,300				44
46	74.9	151.2	59,200	76.9	150.3	57,100	78.9	148.4	41,800	46
48	74.1	150.6	57,100	76.1	149.7	56,700	78.1	147.8	41,000	48
50	73.3	150.0	53,800	75.3	149.1	54,800	77.3	147.2	40,200	50
55	71.3	148.3	47,000	73.2	147.4	47,800	75.2	145.4	38,300	55
60	69.2	146.4	41,500	71.2	145.5	42,200	73.1	143.5	36,700	60
65	67.2	144.3	36,900	69.1	143.3	37,600	71.0	141.3	35,300	65
70	65.1	141.9	33,200	67.0	141.0	33,700	68.9	138.9	33,900	70
75	62.9	139.4	30,000	64.8	138.4	30,500	66.7	136.3	31,000	75
80	60.7	136.6	27,200	62.6	135.6	27,700	64.4	133.4	28,100	80
85	58.5	133.5	24,800	60.4	132.5	25,200	62.1	130.3	25,600	85
90	56.2	130.2	22,700	58.1	129.1	23,100	59.8	126.9	23,400	90
95	53.8	126.5	20,800	55.7	125.4	21,200	57.4	123.1	21,500	95
100	51.4	122.5	19,200	53.2	121.4	19,500	54.9	119.0	19,800	100
105	48.9	118.2	17,700	50.7	117.0	18,000	52.2	114.5	18,200	105
110	46.2	113.4	16,400	48.0	112.2	16,600	49.5	109.6	16,800	110
115	43.5	108.2	15,100	45.2	107.0	15,400	46.6	104.2	15,500	115
120	40.6	102.4	14,000	42.3	101.1	14,200	43.6	98.1	14,400	120
125	37.5	96.0	13,000	39.1	94.6	13,200	40.3	91.4	13,300	125
130	34.1	88.8	12,100	35.7	87.2	12,200	36.8	83.7	12,300	130
135	30.4	80.5	11,200	31.9	78.8	11,300	32.8	74.8	11,400	135
140	26.2	70.8	10,400	27.6	68.8	10,500	28.2	64.2	10,500	140
141	25.3	68.6	10,300	26.0	66.5	10,300				141
142				25.7	64.2	10,200				142



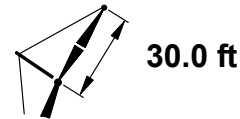
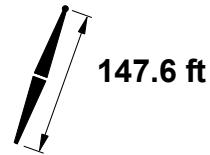
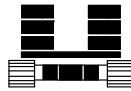
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
38	78.8	163.4	59,200							38
40	78.1	162.9	59,200							40
42	77.3	162.5	59,200							42
43	76.5	162.2	59,200	78.8	161.3	57,400				43
44	76.6	162.0	59,200	78.5	161.1	57,300				44
46	75.8	161.4	59,200	77.7	160.6	56,900				46
48	75.1	160.9	56,700	77.0	160.0	56,700	78.9	158.0	41,700	48
50	74.4	160.3	53,500	76.2	159.4	54,500	78.1	157.5	41,000	50
55	72.5	158.7	46,600	74.3	157.8	47,500	76.2	155.8	39,200	55
60	70.6	156.9	41,100	72.4	156.0	41,900	74.3	154.0	37,600	60
65	68.6	155.0	36,600	70.5	154.0	37,300	72.3	152.0	36,100	65
70	66.7	152.8	32,800	68.5	151.9	33,400	70.3	149.8	34,100	70
75	64.7	150.4	29,600	66.5	149.5	30,200	68.3	147.4	30,700	75
80	62.7	147.9	26,900	64.5	146.9	27,400	66.2	144.8	27,900	80
85	60.6	145.0	24,500	62.4	144.1	24,900	64.1	141.9	25,400	85
90	58.6	142.0	22,400	60.3	141.0	22,800	62.0	138.7	23,200	90
95	56.4	138.7	20,500	58.2	137.6	20,900	59.8	135.3	21,200	95
100	54.2	135.1	18,800	55.9	134.0	19,200	57.5	131.6	19,500	100
105	51.9	131.2	17,300	53.6	130.1	17,700	55.2	127.6	17,900	105
110	49.6	126.9	16,000	51.3	125.8	16,300	52.7	123.3	16,500	110
115	47.1	122.3	14,800	48.8	121.1	15,000	50.2	118.5	15,300	115
120	44.6	117.3	13,700	46.2	116.0	13,900	47.6	113.3	14,100	120
125	41.9	111.8	12,700	43.5	110.5	12,900	44.8	107.6	13,000	125
130	39.1	105.7	11,700	40.7	104.3	11,900	41.9	101.2	12,000	130
135	36.1	98.9	10,900	37.6	97.5	11,000	38.7	94.1	11,100	135
140	32.9	91.4	10,100	34.3	89.8	10,200	35.3	86.1	10,300	140
145	29.3	82.7	9,300	30.7	80.9	9,400	31.4	76.8	9,500	145
149	25.8	74.6	8,800	26.8	72.6	8,900	27.9	68.1	8,900	149
150	25.2	72.6	8,600	26.5	70.5	8,700				150
151				25.6	68.1	8,600				151

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ASME B30.5



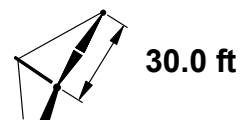
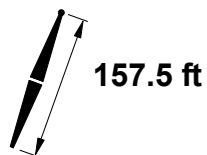
	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
40	78.8	173.0	59,200							40
42	78.1	172.6	59,200							42
44	77.4	172.1	59,200							44
45	76.5	171.9	59,200	78.8	171.0	57,000				45
46	76.7	171.6	59,200	78.5	170.7	56,800				46
48	76.0	171.1	56,400	77.7	170.2	56,500				48
50	75.3	170.5	53,200	77.0	169.6	54,300	78.8	167.7	41,600	50
55	73.5	169.1	46,300	75.3	168.1	47,300	77.0	166.2	39,900	55
60	71.7	167.4	40,800	73.5	166.5	41,600	75.2	164.5	38,400	60
65	70.0	165.6	36,300	71.7	164.6	37,000	73.4	162.6	37,000	65
70	68.1	163.5	32,500	69.9	162.6	33,100	71.5	160.5	33,800	70
75	66.3	161.3	29,200	68.0	160.4	29,800	69.7	158.3	30,400	75
80	64.4	158.9	26,500	66.1	158.0	27,000	67.8	155.9	27,600	80
85	62.5	156.3	24,100	64.2	155.4	24,600	65.8	153.2	25,100	85
90	60.6	153.5	22,000	62.3	152.5	22,400	63.8	150.3	22,900	90
95	58.6	150.5	20,100	60.3	149.4	20,500	61.8	147.2	20,900	95
100	56.6	147.2	18,400	58.2	146.1	18,800	59.7	143.8	19,200	100
105	54.5	143.6	17,000	56.1	142.5	17,300	57.6	140.2	17,600	105
110	52.4	139.8	15,600	54.0	138.7	15,900	55.4	136.2	16,200	110
115	50.2	135.6	14,400	51.8	134.5	14,700	53.2	131.9	14,900	115
120	47.9	131.1	13,300	49.5	129.9	13,600	50.9	127.3	13,800	120
125	45.6	126.3	12,300	47.1	125.0	12,500	48.4	122.3	12,700	125
130	43.1	121.0	11,300	44.6	119.7	11,600	45.9	116.8	11,700	130
135	40.5	115.2	10,500	42.0	113.8	10,700	43.2	110.8	10,800	135
140	37.8	108.8	9,700	39.3	107.4	9,900	40.3	104.1	10,000	140
145	34.9	101.8	9,000	36.3	100.2	9,100	37.3	96.7	9,200	145
150	31.7	93.9	8,300	33.1	92.2	8,400	33.9	88.3	8,400	150
155	28.3	84.9	7,600	29.5	83.0	7,700	30.2	78.6	7,700	155
157	26.5	80.7	7,400	27.4	78.6	7,400	28.5	74.3	7,500	157
159	25.2	76.6	7,100	25.8	74.2	7,200				159
160				25.5	72.1	7,100				160

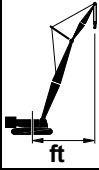
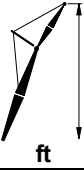


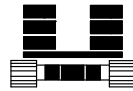
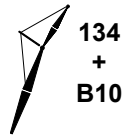
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
42	78.7	182.7	59,200							42
44	78.1	182.2	59,200							44
46	77.4	181.8	59,200							46
47	76.5	181.5	57,700	78.8	180.6	56,400				47
48	76.8	181.3	56,200	78.4	180.4	56,300				48
50	76.1	180.7	52,900	77.8	179.8	54,000				50
52	75.2	180.2	50,200	76.6	179.3	51,200	78.8	177.3	41,600	52
55	74.5	179.3	46,000	76.1	178.4	47,000	77.8	176.4	40,600	55
60	72.8	177.8	40,500	74.4	176.9	41,400	76.1	174.8	39,100	60
65	71.1	176.1	36,000	72.7	175.1	36,800	74.4	173.1	37,500	65
70	69.4	174.2	32,200	71.0	173.2	32,900	72.6	171.2	33,600	70
75	67.7	172.1	29,000	69.3	171.2	29,600	70.9	169.1	30,200	75
80	65.9	169.9	26,200	67.5	168.9	26,800	69.1	166.8	27,300	80
85	64.2	167.4	23,800	65.8	166.5	24,300	67.3	164.3	24,800	85
90	62.4	164.8	21,700	63.9	163.8	22,200	65.5	161.6	22,600	90
95	60.5	162.0	19,800	62.1	161.0	20,300	63.6	158.7	20,700	95
100	58.7	158.9	18,200	60.2	157.9	18,600	61.7	155.6	19,000	100
105	56.7	155.7	16,700	58.3	154.6	17,000	59.7	152.3	17,400	105
110	54.8	152.1	15,300	56.3	151.1	15,700	57.7	148.7	16,000	110
115	52.8	148.4	14,100	54.3	147.2	14,400	55.7	144.8	14,700	115
120	50.7	144.3	13,000	52.3	143.1	13,300	53.6	140.6	13,500	120
125	48.6	139.9	12,000	50.1	138.7	12,300	51.4	136.1	12,500	125
130	46.4	135.2	11,100	47.9	133.9	11,300	49.1	131.2	11,500	130
135	44.1	130.1	10,200	45.6	128.8	10,400	46.8	125.9	10,600	135
140	41.8	124.5	9,400	43.2	123.2	9,600	44.3	120.2	9,800	140
145	39.3	118.5	8,700	40.7	117.0	8,800	41.7	113.9	9,000	145
150	36.6	111.8	8,000	38.0	110.3	8,100	38.9	107.0	8,200	150
155	33.8	104.5	7,400	35.1	102.9	7,500	36.0	99.2	7,500	155
160	30.7	96.3	6,800	32.0	94.5	6,900	32.7	90.5	6,900	160
165	27.3	86.9	6,200	28.5	84.9	6,300	29.0	80.4	6,300	165
166	26.3	84.8	6,100	27.3	82.7	6,100	28.3	78.2	6,200	166
168	25.1	80.5	5,900	25.8	78.2	5,900				168
169				25.4	76.0	5,800				169

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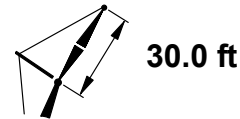
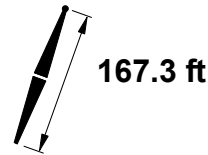
ASME B30.5



	5°			15°			25°			
 ft	 o	 ft	 lb	 o	 ft	 lb	 o	 ft	 lb	 ft
44	78.7	192.3	59,200							44
46	78.1	191.9	59,200							46
48	77.5	191.4	55,900							48
49	76.5	191.1	54,200	78.7	190.2	55,400				49
50	76.8	190.9	52,600	78.4	190.0	53,800				50
54	75.2	189.8	47,100	76.4	188.9	48,200	78.8	186.9	41,500	54
55	75.3	189.6	45,700	76.9	188.7	46,700	78.5	186.7	41,200	55
60	73.7	188.1	40,200	75.3	187.2	41,100	76.9	185.2	39,700	60
65	72.1	186.5	35,600	73.7	185.6	36,500	75.2	183.5	37,300	65
70	70.5	184.7	31,800	72.1	183.8	32,600	73.6	181.7	33,300	70
75	68.9	182.8	28,600	70.4	181.8	29,300	72.0	179.7	29,900	75
80	67.3	180.7	25,800	68.8	179.7	26,400	70.3	177.6	27,100	80
85	65.6	178.4	23,400	67.1	177.4	24,000	68.6	175.3	24,500	85
90	63.9	175.9	21,300	65.4	175.0	21,800	66.9	172.8	22,300	90
95	62.2	173.3	19,400	63.7	172.3	19,900	65.1	170.1	20,400	95
100	60.5	170.5	17,800	62.0	169.4	18,200	63.4	167.2	18,600	100
105	58.7	167.4	16,300	60.2	166.4	16,700	61.6	164.1	17,100	105
110	56.9	164.2	15,000	58.4	163.1	15,300	59.7	160.8	15,700	110
115	55.1	160.7	13,700	56.5	159.6	14,100	57.8	157.2	14,400	115
120	53.2	156.9	12,600	54.6	155.8	12,900	55.9	153.4	13,200	120
125	51.2	152.9	11,600	52.7	151.8	11,900	53.9	149.3	12,200	125
130	49.2	148.6	10,700	50.6	147.5	10,900	51.9	144.8	11,200	130
135	47.2	144.0	9,800	48.6	142.8	10,100	49.8	140.1	10,300	135
140	45.1	139.1	9,000	46.4	137.8	9,200	47.6	135.0	9,400	140
145	42.8	133.7	8,300	44.2	132.4	8,500	45.3	129.5	8,600	145
150	40.5	127.9	7,600	41.9	126.5	7,800	42.9	123.5	7,900	150
155	38.1	121.6	7,000	39.4	120.2	7,100	40.3	116.9	7,200	155
160	35.5	114.7	6,400	36.8	113.2	6,500	37.7	109.7	6,600	160
165	32.8	107.1	5,800	34.0	105.4	5,900	34.8	101.6	6,000	165
170	29.8	98.6	5,300	30.9	96.7	5,400	31.6	92.6	5,400	170
175	26.5	88.8	4,800	27.6	86.8	4,800	28.0	82.1	4,800	175
177	25.0	84.5	4,600	25.7	82.3	4,600				177
178				25.3	80.0	4,500				178



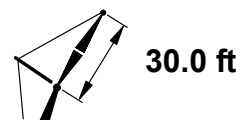
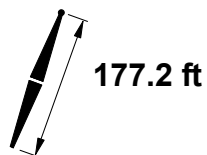
75,200 lb
+
0 lb

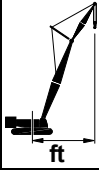
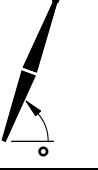
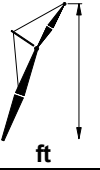
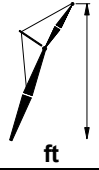


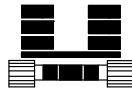
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
45	79.0	202.2	59,200							45
46	78.7	201.9	59,100							46
48	78.1	201.5	55,500							48
50	77.5	201.0	52,300							50
51	76.8	200.8	50,900	78.7	199.9	52,000				51
55	76.0	199.8	45,400	77.5	198.9	46,500				55
56	75.6	199.5	44,300	76.8	198.6	45,300	78.7	196.6	41,500	56
60	74.5	198.4	39,800	76.0	197.5	40,800	77.5	195.4	40,300	60
65	73.0	196.9	35,300	74.5	195.9	36,200	76.0	193.9	37,000	65
70	71.5	195.2	31,500	73.0	194.2	32,300	74.5	192.2	33,000	70
75	70.0	193.3	28,300	71.5	192.4	29,000	72.9	190.3	29,700	75
80	68.4	191.4	25,500	69.9	190.4	26,100	71.3	188.3	26,800	80
85	66.9	189.2	23,100	68.3	188.2	23,700	69.8	186.1	24,200	85
90	65.3	186.9	21,000	66.7	185.9	21,500	68.1	183.8	22,000	90
95	63.7	184.4	19,100	65.1	183.4	19,600	66.5	181.2	20,100	95
100	62.1	181.8	17,400	63.5	180.8	17,900	64.9	178.5	18,300	100
105	60.4	178.9	15,900	61.8	177.9	16,400	63.2	175.6	16,800	105
110	58.7	175.9	14,600	60.1	174.9	15,000	61.5	172.5	15,400	110
115	57.0	172.7	13,400	58.4	171.6	13,700	59.7	169.2	14,100	115
120	55.3	169.2	12,300	56.7	168.1	12,600	57.9	165.7	12,900	120
125	53.5	165.5	11,300	54.9	164.4	11,600	56.1	161.9	11,800	125
130	51.7	161.6	10,300	53.0	160.4	10,600	54.2	157.9	10,900	130
135	49.8	157.3	9,500	51.1	156.2	9,700	52.3	153.6	10,000	135
140	47.8	152.8	8,700	49.2	151.6	8,900	50.3	148.9	9,100	140
145	45.8	148.0	7,900	47.2	146.8	8,200	48.3	144.0	8,300	145
150	43.8	142.8	7,300	45.1	141.5	7,400	46.1	138.6	7,600	150
155	41.6	137.2	6,600	42.9	135.9	6,800	43.9	132.9	6,900	155
160	39.4	131.2	6,000	40.6	129.8	6,200	41.6	126.6	6,300	160
165	37.0	124.7	5,400	38.2	123.2	5,600	39.1	119.8	5,700	165
170	34.5	117.5	4,900	35.7	115.9	5,000	36.5	112.3	5,100	170
175	31.8	109.6	4,300	32.9	107.9	4,500	33.6	104.0	4,500	175
180	28.9	100.8	3,800	30.0	98.8	3,900	30.5	94.6	3,900	180
183	26.2	94.7	3,400	27.2	92.7	3,500	28.5	88.2	3,500	183
185	25.7	90.7	3,200	26.7	88.6	3,300				185
187				25.2	84.0	3,100				187

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ASME B30.5



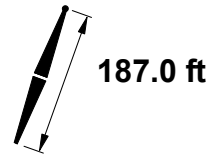
	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
47	78.9	211.8	57,000							47
48	78.7	211.6	55,200							48
50	78.1	211.1	52,000							50
52	77.2	210.7	49,200	79.0	209.8	50,200				52
55	76.7	209.9	45,100	78.1	209.0	46,200				55
58	75.4	209.1	41,700	76.8	208.2	42,800	78.7	206.2	41,400	58
60	75.3	208.6	39,500	76.7	207.7	40,500	78.1	205.6	40,900	60
65	73.9	207.2	34,900	75.3	206.2	35,900	76.7	204.2	36,800	65
70	72.4	205.6	31,100	73.8	204.6	32,000	75.2	202.6	32,800	70
75	71.0	203.8	27,900	72.4	202.9	28,600	73.8	200.8	29,400	75
80	69.5	202.0	25,100	70.9	201.0	25,800	72.3	198.9	26,500	80
85	68.0	199.9	22,700	69.4	199.0	23,300	70.8	196.8	23,900	85
90	66.5	197.8	20,600	67.9	196.8	21,200	69.3	194.6	21,700	90
95	65.0	195.4	18,700	66.4	194.4	19,300	67.7	192.2	19,800	95
100	63.5	192.9	17,100	64.9	191.9	17,500	66.2	189.7	18,000	100
105	61.9	190.3	15,600	63.3	189.2	16,000	64.6	187.0	16,400	105
110	60.4	187.4	14,200	61.7	186.4	14,600	63.0	184.1	15,000	110
115	58.8	184.4	13,000	60.1	183.3	13,400	61.4	181.0	13,800	115
120	57.1	181.2	11,900	58.5	180.1	12,200	59.7	177.7	12,600	120
125	55.5	177.7	10,900	56.8	176.6	11,200	58.0	174.2	11,500	125
130	53.8	174.1	9,900	55.1	172.9	10,200	56.3	170.5	10,500	130
135	52.0	170.2	9,100	53.3	169.0	9,400	54.5	166.5	9,600	135
140	50.3	166.0	8,300	51.6	164.9	8,500	52.7	162.2	8,800	140
145	48.4	161.6	7,500	49.7	160.4	7,800	50.8	157.7	8,000	145
150	46.6	156.9	6,900	47.8	155.7	7,100	48.9	152.9	7,300	150
155	44.6	151.9	6,200	45.9	150.6	6,400	46.9	147.7	6,600	155
160	42.6	146.5	5,600	43.8	145.1	5,800	44.8	142.1	5,900	160
165	40.5	140.7	5,000	41.7	139.3	5,200	42.6	136.1	5,300	165
170	38.3	134.4	4,400	39.5	132.9	4,500	40.3	129.6	4,700	170
175	36.0	127.6	3,800	37.1	126.0	3,900	37.9	122.6	4,000	175
180	33.6	120.2	3,200	34.7	118.5	3,400	35.4	114.8	3,400	180



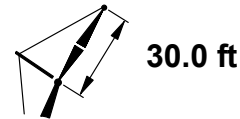
75,200 lb
+
0 lb



360°



187.0 ft

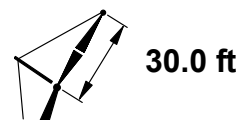
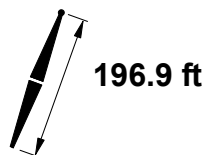


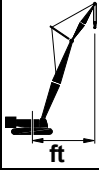
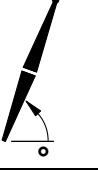
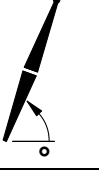
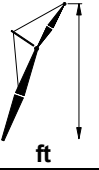
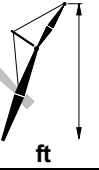
30.0 ft

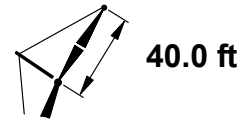
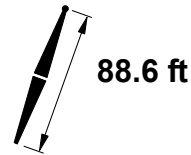
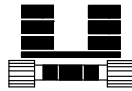
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
49	78.9	221.4	53,300							49
50	78.7	221.2	51,700							50
54	77.2	220.3	46,100	79.0	219.4	47,200				54
55	77.3	220.1	44,800	78.7	219.1	45,900				55
59	75.4	219.1	40,300	77.2	218.1	41,400	79.0	216.1	41,700	59
60	76.0	218.8	39,200	77.3	217.9	40,300	78.7	215.8	41,300	60
65	74.6	217.4	34,600	76.0	216.5	35,600	77.3	214.4	36,500	65
70	73.2	215.9	30,800	74.6	215.0	31,700	75.9	212.9	32,500	70
75	71.9	214.3	27,600	73.2	213.3	28,400	74.5	211.2	29,100	75
80	70.5	212.5	24,800	71.8	211.5	25,500	73.1	209.4	26,200	80
85	69.1	210.6	22,400	70.4	209.6	23,100	71.7	207.5	23,700	85
90	67.7	208.5	20,300	69.0	207.5	20,900	70.3	205.4	21,500	90
95	66.2	206.3	18,400	67.6	205.3	19,000	68.8	203.1	19,500	95
100	64.8	203.9	16,700	66.1	202.9	17,300	67.4	200.7	17,800	100
105	63.3	201.4	15,300	64.6	200.4	15,700	65.9	198.2	16,200	105
110	61.8	198.7	13,900	63.1	197.7	14,400	64.4	195.4	14,800	110
115	60.3	195.9	12,700	61.6	194.8	13,100	62.8	192.5	13,500	115
120	58.8	192.9	11,600	60.1	191.8	12,000	61.3	189.5	12,300	120
125	57.2	189.7	10,600	58.5	188.6	10,900	59.7	186.2	11,200	125
130	55.7	186.2	9,600	56.9	185.1	10,000	58.1	182.7	10,300	130
135	54.1	182.6	8,800	55.3	181.5	9,100	56.4	179.0	9,400	135
140	52.4	178.8	8,000	53.6	177.6	8,300	54.7	175.1	8,500	140
145	50.7	174.7	7,200	51.9	173.5	7,500	53.0	170.9	7,700	145
150	49.0	170.4	6,600	50.2	169.1	6,800	51.2	166.5	7,000	150
155	47.2	165.8	5,900	48.4	164.5	6,100	49.4	161.7	6,300	155
160	45.4	160.8	5,200	46.6	159.6	5,500	47.5	156.7	5,700	160
165	43.5	155.6	4,500	44.6	154.3	4,800	45.6	151.3	5,000	165
170	41.5	150.0	3,900	42.7	148.6	4,100	43.6	145.5	4,300	170
175	39.5	144.0	3,300	40.6	142.5	3,500	41.4	139.3	3,700	175
180				38.4	136.0	3,000	39.2	132.6	3,100	180

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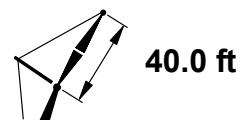
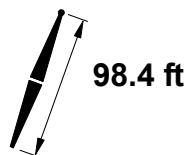
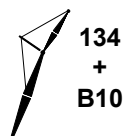
	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
51	78.9	231.1	49,900							51
55	77.9	230.2	44,500							55
56	76.8	229.9	43,300	78.9	229.0	44,400				56
60	76.6	229.0	38,900	77.9	228.0	40,000				60
61	75.8	228.7	38,000	76.8	227.8	39,000	78.9	225.7	40,100	61
65	75.3	227.7	34,300	76.6	226.7	35,300	77.9	224.6	36,300	65
70	74.0	226.2	30,500	75.3	225.3	31,400	76.6	223.2	32,300	70
75	72.7	224.7	27,200	74.0	223.7	28,100	75.2	221.6	28,900	75
80	71.4	223.0	24,500	72.6	222.0	25,200	73.9	219.9	25,900	80
85	70.0	221.1	22,000	71.3	220.2	22,700	72.6	218.0	23,400	85
90	68.7	219.2	19,900	69.9	218.2	20,600	71.2	216.0	21,200	90
95	67.3	217.1	18,000	68.6	216.1	18,600	69.8	213.9	19,200	95
100	65.9	214.8	16,400	67.2	213.8	16,900	68.4	211.6	17,400	100
105	64.6	212.5	14,900	65.8	211.4	15,400	67.0	209.2	15,900	105
110	63.2	209.9	13,500	64.4	208.9	14,000	65.6	206.6	14,400	110
115	61.7	207.2	12,300	63.0	206.2	12,700	64.1	203.9	13,200	115
120	60.3	204.4	11,200	61.5	203.3	11,600	62.7	201.0	12,000	120
125	58.8	201.3	10,200	60.1	200.3	10,600	61.2	197.9	10,900	125
130	57.3	198.1	9,200	58.6	197.1	9,600	59.7	194.7	9,900	130
135	55.8	194.8	8,400	57.0	193.6	8,700	58.1	191.2	9,000	135
140	54.3	191.2	7,600	55.5	190.0	7,900	56.6	187.5	8,200	140
145	52.7	187.4	6,800	53.9	186.2	7,100	55.0	183.7	7,400	145
150	51.1	183.3	6,100	52.3	182.2	6,400	53.3	179.6	6,700	150
155	49.5	179.1	5,300	50.6	177.9	5,700	51.6	175.2	5,900	155
160	47.8	174.6	4,600	48.9	173.3	4,900	49.9	170.6	5,200	160
165	46.1	169.8	4,000	47.2	168.5	4,200	48.1	165.7	4,500	165
170	44.3	164.7	3,400	45.4	163.3	3,600	46.3	160.4	3,800	170
175				43.5	157.9	3,000	44.4	154.8	3,200	175



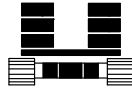
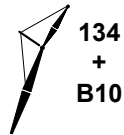
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
34	78.8	134.1	52,400							34
36	77.9	133.6	51,800							36
38	77.0	133.1	51,300							38
40	76.0	132.5	50,700							40
41	75.5	132.2	50,500	78.7	131.1	46,900				41
42	75.1	132.0	50,300	78.2	130.8	46,800				42
44	74.2	131.3	49,800	77.3	130.2	46,400				44
46	73.3	130.7	49,300	76.3	129.5	46,100				46
47	72.5	130.3	49,000	75.5	129.2	46,000	79.0	126.8	31,800	47
48	72.4	130.0	48,800	75.4	128.8	45,800	78.5	126.5	31,400	48
50	71.4	129.2	48,400	74.5	128.1	45,500	77.5	125.7	30,700	50
55	69.1	127.2	47,300	72.1	126.1	44,800	75.1	123.6	29,200	55
60	66.7	125.0	42,900	69.6	123.8	43,000	72.6	121.3	27,800	60
65	64.2	122.5	38,400	67.2	121.3	39,000	70.1	118.7	26,600	65
70	61.7	119.7	34,600	64.6	118.5	35,200	67.5	115.9	25,500	70
75	59.1	116.6	31,400	62.0	115.4	31,900	64.8	112.7	24,500	75
80	56.5	113.2	28,600	59.3	111.9	29,100	62.1	109.1	23,600	80
85	53.7	109.5	26,200	56.5	108.1	26,600	59.2	105.2	22,800	85
90	50.9	105.3	24,100	53.7	103.9	24,500	56.2	100.9	22,000	90
95	47.9	100.7	22,200	50.6	99.2	22,600	53.1	96.0	21,400	95
100	44.7	95.6	20,600	47.4	94.0	20,900	49.8	90.6	20,800	100
105	41.4	89.8	19,100	44.0	88.1	19,300	46.2	84.5	19,500	105
110	37.8	83.3	17,700	40.3	81.5	17,900	42.4	77.5	18,100	110
115	33.8	75.8	16,500	36.3	73.8	16,700	38.0	69.3	16,800	115
120	29.4	67.0	15,400	31.7	64.7	15,500	33.1	59.4	15,600	120
123	26.0	60.7	14,700	28.0	57.8	14,900	29.5	52.2	14,900	123
124	25.3	58.6	14,500	27.0	55.6	14,600				124
125				26.2	53.3	14,400				125

MLC150-1 S-1

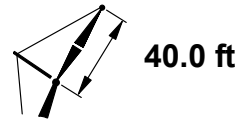
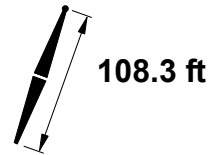
ASME B30.5



	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	ft
36	78.7	143.8	52,000							36
38	77.9	143.3	51,500							38
40	77.0	142.8	51,000							40
42	76.2	142.2	50,500							42
43	75.5	141.9	50,300	78.6	140.8	46,800				43
44	75.3	141.6	50,100	78.2	140.5	46,600				44
46	74.5	141.0	49,600	77.3	139.9	46,400				46
48	73.6	140.4	49,200	76.5	139.2	46,000				48
49	72.5	140.0	49,000	75.5	138.9	45,900	78.9	136.4	31,800	49
50	72.8	139.7	48,800	75.6	138.5	45,700	78.5	136.1	31,400	50
55	70.6	137.9	47,800	73.4	136.7	45,100	76.3	134.2	29,900	55
60	68.4	135.8	42,500	71.2	134.6	43,400	74.0	132.1	28,500	60
65	66.2	133.5	38,000	68.9	132.3	38,800	71.7	129.7	27,300	65
70	63.9	131.0	34,200	66.6	129.7	34,900	69.3	127.1	26,200	70
75	61.5	128.2	31,000	64.2	126.9	31,600	66.9	124.2	25,200	75
80	59.1	125.1	28,200	61.8	123.8	28,800	64.4	121.0	24,300	80
85	56.7	121.7	25,800	59.3	120.4	26,300	61.9	117.5	23,500	85
90	54.1	118.0	23,700	56.8	116.6	24,100	59.2	113.7	22,800	90
95	51.5	114.0	21,800	54.1	112.5	22,200	56.5	109.5	22,100	95
100	48.8	109.5	20,200	51.3	108.0	20,500	53.6	104.8	20,800	100
105	45.9	104.6	18,700	48.4	103.0	19,000	50.6	99.6	19,300	105
110	42.9	99.1	17,300	45.4	97.5	17,600	47.4	93.9	17,800	110
115	39.7	93.0	16,100	42.1	91.2	16,300	44.0	87.4	16,500	115
120	36.2	86.2	15,000	38.5	84.2	15,200	40.3	80.0	15,300	120
125	32.4	78.3	14,000	34.6	76.1	14,100	36.1	71.3	14,200	125
130	28.1	69.0	13,000	30.2	66.5	13,100	31.3	60.9	13,200	130
132	26.0	64.7	12,700	27.5	61.8	12,800	29.0	56.0	12,800	132
133	25.2	62.5	12,500	26.3	59.5	12,600				133
134				26.0	57.2	12,400				134



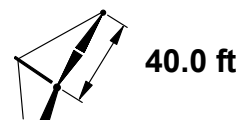
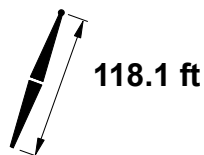
75,200 lb
+
0 lb

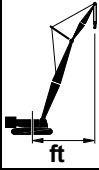
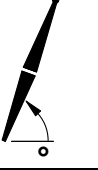
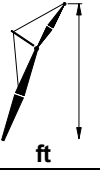
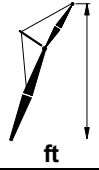
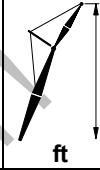


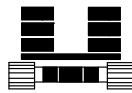
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
38	78.7	153.4	51,600							38
40	77.9	152.9	51,200							40
42	77.1	152.4	50,800							42
44	76.3	151.9	50,300							44
45	75.5	151.6	50,100	78.6	150.4	46,500				45
46	75.5	151.3	49,900	78.2	150.1	46,400				46
48	74.7	150.7	49,500	77.4	149.5	46,200				48
50	73.9	150.1	49,100	76.6	148.9	45,900				50
51	72.6	149.7	48,900	75.6	148.5	45,800	78.9	146.1	31,700	51
55	71.9	148.4	47,800	74.6	147.2	45,300	77.2	144.6	30,600	55
60	69.9	146.5	42,300	72.5	145.2	43,200	75.1	142.7	29,200	60
65	67.8	144.3	37,700	70.4	143.1	38,500	73.0	140.5	28,000	65
70	65.7	142.0	33,900	68.3	140.8	34,700	70.8	138.1	26,900	70
75	63.6	139.5	30,700	66.1	138.2	31,400	68.6	135.5	25,900	75
80	61.4	136.6	28,000	63.9	135.3	28,500	66.4	132.6	25,100	80
85	59.2	133.6	25,500	61.7	132.2	26,100	64.1	129.4	24,200	85
90	56.9	130.2	23,400	59.4	128.9	23,900	61.7	126.0	23,500	90
95	54.5	126.6	21,600	57.0	125.2	22,000	59.2	122.2	22,400	95
100	52.1	122.6	19,900	54.5	121.2	20,300	56.7	118.0	20,700	100
105	49.5	118.3	18,400	51.9	116.8	18,800	54.1	113.5	19,100	105
110	46.9	113.5	17,100	49.3	111.9	17,400	51.3	108.5	17,700	110
115	44.2	108.3	15,900	46.5	106.6	16,100	48.4	103.1	16,400	115
120	41.3	102.5	14,700	43.5	100.8	15,000	45.4	97.0	15,200	120
125	38.1	96.1	13,700	40.3	94.2	13,900	42.0	90.1	14,100	125
130	34.8	88.9	12,800	36.9	86.8	13,000	38.4	82.3	13,100	130
135	31.1	80.6	11,900	33.1	78.3	12,000	34.4	73.2	12,100	135
140	27.0	70.9	11,100	28.8	68.3	11,200	29.7	62.2	11,200	140
142	25.1	66.5	10,800	26.0	63.5	10,900				142
143				25.8	61.1	10,700				143

MLC150-1 S-1

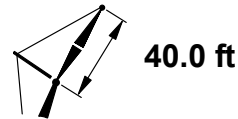
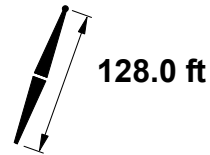
ASME B30.5



	5°			15°			25°			
 ft	 o	 ft	 lb	 o	 ft	 lb	 o	 ft	 lb	 ft
40	78.7	163.0	51,300							40
42	77.9	162.5	50,800							42
44	77.2	162.0	50,400							44
46	76.5	161.5	50,000	79.0	160.3	46,500				46
48	75.7	161.0	49,600	78.2	159.8	46,300				48
50	75.0	160.4	49,300	77.5	159.2	46,000				50
53	73.4	159.4	48,200	75.8	158.2	45,700	78.8	155.7	31,700	53
55	73.1	158.8	47,500	75.6	157.6	45,400	78.1	155.0	31,100	55
60	71.2	157.0	41,900	73.7	155.8	42,900	76.1	153.2	29,800	60
65	69.3	155.0	37,400	71.7	153.8	38,300	74.2	151.2	28,700	65
70	67.3	152.9	33,600	69.7	151.6	34,400	72.2	149.0	27,600	70
75	65.3	150.5	30,400	67.8	149.2	31,100	70.1	146.5	26,600	75
80	63.3	147.9	27,600	65.7	146.6	28,200	68.0	143.9	25,700	80
85	61.3	145.1	25,200	63.6	143.8	25,800	65.9	141.0	24,900	85
90	59.2	142.1	23,100	61.5	140.7	23,600	63.8	137.8	24,100	90
95	57.0	138.7	21,200	59.4	137.3	21,700	61.5	134.4	22,100	95
100	54.8	135.2	19,500	57.1	133.7	20,000	59.3	130.7	20,400	100
105	52.6	131.2	18,000	54.8	129.8	18,400	56.9	126.6	18,800	105
110	50.2	127.0	16,700	52.5	125.5	17,000	54.5	122.2	17,400	110
115	47.8	122.4	15,500	50.0	120.8	15,800	51.9	117.4	16,100	115
120	45.2	117.4	14,300	47.4	115.7	14,600	49.3	112.1	14,900	120
125	42.6	111.9	13,300	44.7	110.1	13,600	46.5	106.3	13,800	125
130	39.8	105.8	12,400	41.8	103.9	12,600	43.5	99.9	12,800	130
135	36.8	99.1	11,500	38.8	97.1	11,700	40.3	92.7	11,900	135
140	33.5	91.5	10,700	35.5	89.3	10,900	36.8	84.5	11,000	140
145	30.0	82.9	10,000	31.8	80.4	10,100	32.8	75.0	10,200	145
149	25.8	74.8	9,400	27.8	72.0	9,500	29.2	66.0	9,500	149
150	25.9	72.7	9,300	27.6	69.9	9,400				150
151	25.0	70.5	9,100	26.0	67.5	9,200				151
152				25.7	65.0	9,100				152



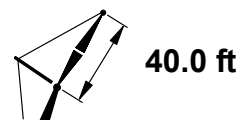
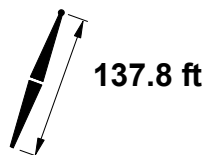
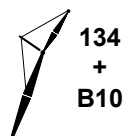
75,200 lb
+
0 lb



	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
41	79.0	172.9	51,000							41
42	78.6	172.7	50,800							42
44	78.0	172.2	50,400							44
46	77.3	171.7	50,100							46
48	76.6	171.2	49,700	78.9	170.0	46,200				48
50	75.9	170.6	49,300	78.2	169.4	46,000				50
55	74.1	169.1	47,200	76.4	167.9	45,500	78.8	165.3	31,600	55
60	72.3	167.5	41,600	74.7	166.2	42,600	77.0	163.6	30,400	60
65	70.5	165.6	37,100	72.8	164.4	38,000	75.2	161.7	29,200	65
70	68.7	163.6	33,300	71.0	162.3	34,100	73.3	159.7	28,200	70
75	66.9	161.4	30,000	69.2	160.1	30,800	71.4	157.4	27,200	75
80	65.0	159.0	27,200	67.3	157.7	27,900	69.5	154.9	26,300	80
85	63.1	156.4	24,800	65.4	155.1	25,500	67.5	152.3	25,500	85
90	61.2	153.6	22,700	63.4	152.2	23,300	65.5	149.4	23,800	90
95	59.2	150.5	20,800	61.4	149.2	21,400	63.5	146.2	21,900	95
100	57.2	147.2	19,200	59.4	145.8	19,600	61.4	142.8	20,100	100
105	55.1	143.7	17,700	57.3	142.2	18,100	59.3	139.1	18,500	105
110	53.0	139.9	16,300	55.1	138.4	16,700	57.1	135.2	17,100	110
115	50.8	135.7	15,100	52.9	134.2	15,500	54.8	130.9	15,800	115
120	48.5	131.2	14,000	50.6	129.6	14,300	52.4	126.2	14,600	120
125	46.2	126.4	13,000	48.2	124.7	13,300	50.0	121.1	13,500	125
130	43.7	121.1	12,000	45.7	119.3	12,300	47.4	115.6	12,500	130
135	41.1	115.3	11,200	43.1	113.4	11,400	44.7	109.5	11,600	135
140	38.4	108.9	10,400	40.3	107.0	10,600	41.8	102.8	10,700	140
145	35.5	101.9	9,600	37.4	99.8	9,800	38.7	95.2	9,900	145
150	32.4	94.0	8,900	34.1	91.7	9,100	35.3	86.7	9,200	150
155	28.9	85.0	8,300	30.6	82.4	8,400	31.5	76.7	8,500	155
158	25.8	78.8	7,900	27.6	75.8	8,000	28.9	69.8	8,000	158
159	25.8	76.7	7,800	26.8	73.6	7,900				159
160				26.5	71.4	7,800				160
161				25.6	69.0	7,600				161

MLC150-1 S-1

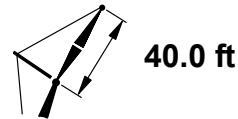
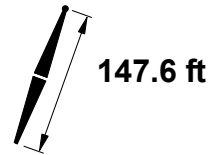
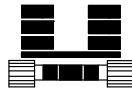
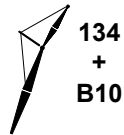
ASME B30.5



	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
43	79.0	182.5	50,500							43
44	78.6	182.3	50,300							44
46	78.0	181.8	50,000							46
48	77.3	181.3	49,600							48
50	76.7	180.8	49,300	78.9	179.6	46,000				50
55	75.0	179.4	46,800	77.2	178.2	45,500				55
57	74.2	178.8	44,600	76.2	177.5	44,200	78.8	174.9	31,600	57
60	73.3	177.9	41,300	75.5	176.6	42,400	77.8	174.0	30,900	60
65	71.7	176.1	36,700	73.8	174.9	37,700	76.0	172.2	29,800	65
70	69.9	174.2	32,900	72.1	173.0	33,800	74.3	170.3	28,700	70
75	68.2	172.2	29,700	70.4	170.9	30,500	72.5	168.2	27,800	75
80	66.5	169.9	26,900	68.6	168.6	27,600	70.7	165.9	26,900	80
85	64.7	167.5	24,500	66.8	166.2	25,100	68.9	163.4	25,800	85
90	62.9	164.9	22,300	65.0	163.5	22,900	67.1	160.7	23,500	90
95	61.1	162.1	20,500	63.2	160.7	21,000	65.2	157.8	21,600	95
100	59.2	159.0	18,800	61.3	157.6	19,300	63.3	154.6	19,800	100
105	57.3	155.7	17,300	59.4	154.3	17,800	61.3	151.3	18,200	105
110	55.4	152.2	15,900	57.4	150.8	16,400	59.3	147.6	16,800	110
115	53.4	148.4	14,700	55.4	146.9	15,100	57.2	143.7	15,500	115
120	51.3	144.4	13,600	53.3	142.8	14,000	55.1	139.5	14,300	120
125	49.2	140.0	12,600	51.2	138.4	12,900	52.9	135.0	13,200	125
130	47.0	135.3	11,600	48.9	133.6	12,000	50.6	130.0	12,200	130
135	44.7	130.2	10,800	46.6	128.4	11,100	48.2	124.7	11,300	135
140	42.3	124.6	10,000	44.2	122.8	10,200	45.7	118.9	10,400	140
145	39.8	118.6	9,200	41.7	116.6	9,500	43.1	112.5	9,600	145
150	37.2	111.9	8,500	39.0	109.9	8,700	40.3	105.5	8,900	150
155	34.4	104.6	7,900	36.1	102.4	8,100	37.3	97.6	8,200	155
160	31.3	96.4	7,300	32.9	94.0	7,400	33.9	88.7	7,500	160
165	27.9	87.0	6,700	29.5	84.3	6,800	30.2	78.4	6,900	165
166	26.3	84.9	6,600	28.2	82.0	6,700	29.4	76.1	6,700	166
168	25.7	80.7	6,400	26.6	77.5	6,500				168
170				25.5	72.9	6,300				170

MLC150-1 S-1

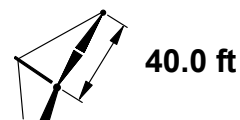
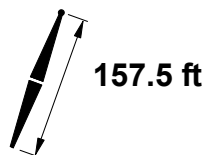
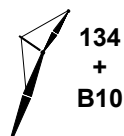
ASME B30.5



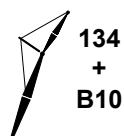
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
45	78.9	192.2	49,900							45
46	78.6	191.9	49,800							46
48	78.0	191.5	49,500							48
50	77.4	191.0	49,200							50
52	76.2	190.4	48,100	78.9	189.2	45,600				52
55	75.8	189.7	46,600	77.9	188.4	45,400				55
59	74.2	188.5	42,100	76.2	187.2	42,800	78.8	184.6	31,600	59
60	74.2	188.2	41,000	76.3	186.9	42,100	78.4	184.3	31,400	60
65	72.6	186.6	36,400	74.7	185.3	37,500	76.8	182.6	30,300	65
70	71.0	184.8	32,600	73.1	183.5	33,500	75.2	180.8	29,200	70
75	69.4	182.8	29,400	71.5	181.5	30,200	73.5	178.8	28,300	75
80	67.8	180.7	26,600	69.8	179.4	27,400	71.8	176.6	27,400	80
85	66.1	178.5	24,200	68.1	177.1	24,900	70.1	174.3	25,600	85
90	64.4	176.0	22,100	66.5	174.7	22,700	68.4	171.8	23,300	90
95	62.7	173.4	20,200	64.7	172.0	20,800	66.7	169.1	21,300	95
100	61.0	170.5	18,500	63.0	169.1	19,100	64.9	166.2	19,600	100
105	59.2	167.5	17,000	61.2	166.1	17,500	63.1	163.1	18,000	105
110	57.4	164.2	15,700	59.4	162.8	16,100	61.2	159.7	16,600	110
115	55.6	160.8	14,400	57.5	159.3	14,900	59.3	156.1	15,300	115
120	53.7	157.0	13,300	55.6	155.5	13,700	57.4	152.3	14,100	120
125	51.8	153.0	12,300	53.7	151.4	12,700	55.4	148.1	13,000	125
130	49.8	148.7	11,400	51.6	147.1	11,700	53.3	143.7	12,000	130
135	47.7	144.1	10,500	49.6	142.4	10,800	51.2	138.9	11,100	135
140	45.6	139.2	9,700	47.4	137.4	10,000	48.9	133.7	10,200	140
145	43.4	133.8	9,000	45.2	132.0	9,200	46.6	128.1	9,400	145
150	41.1	128.0	8,300	42.8	126.1	8,500	44.2	122.1	8,700	150
155	38.6	121.7	7,600	40.3	119.7	7,800	41.6	115.4	8,000	155
160	36.1	114.8	7,000	37.7	112.7	7,200	38.9	108.1	7,300	160
165	33.3	107.2	6,500	34.9	104.9	6,600	36.0	99.9	6,700	165
170	30.3	98.7	5,900	31.9	96.2	6,000	32.7	90.7	6,100	170
175	27.0	89.0	5,400	28.4	86.2	5,500	29.1	79.9	5,500	175
177	25.6	84.7	5,200	26.5	81.5	5,300				177
179				25.4	76.9	5,100				179

MLC150-1 S-1

ASME B30.5



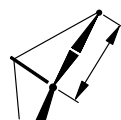
	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
47	78.9	201.8	49,400							47
48	78.6	201.6	49,200							48
50	78.0	201.1	49,000							50
54	76.4	200.1	46,800	78.8	198.8	45,300				54
55	76.5	199.8	46,300	78.5	198.6	45,200				55
60	75.0	198.5	40,700	77.0	197.2	41,900				60
61	74.6	198.1	39,800	76.6	196.9	40,900	78.7	194.2	31,600	61
65	73.5	196.9	36,100	75.5	195.6	37,200	77.5	192.9	30,700	65
70	72.0	195.2	32,300	74.0	193.9	33,300	76.0	191.2	29,700	70
75	70.5	193.4	29,000	72.4	192.1	29,900	74.4	189.3	28,800	75
80	68.9	191.4	26,200	70.9	190.1	27,000	72.8	187.3	27,900	80
85	67.4	189.3	23,800	69.3	188.0	24,600	71.2	185.1	25,300	85
90	65.8	187.0	21,700	67.7	185.6	22,400	69.6	182.8	23,000	90
95	64.2	184.5	19,800	66.1	183.1	20,400	68.0	180.2	21,100	95
100	62.6	181.9	18,100	64.5	180.5	18,700	66.3	177.5	19,300	100
105	60.9	179.0	16,600	62.8	177.6	17,200	64.6	174.6	17,700	105
110	59.2	176.0	15,300	61.1	174.5	15,800	62.9	171.5	16,300	110
115	57.5	172.7	14,100	59.4	171.3	14,500	61.1	168.2	15,000	115
120	55.8	169.3	12,900	57.6	167.8	13,400	59.3	164.6	13,800	120
125	54.0	165.6	11,900	55.8	164.0	12,300	57.5	160.8	12,700	125
130	52.2	161.6	11,000	54.0	160.1	11,300	55.6	156.7	11,700	130
135	50.3	157.4	10,100	52.1	155.8	10,400	53.6	152.4	10,700	135
140	48.4	152.9	9,300	50.1	151.3	9,600	51.6	147.7	9,900	140
145	46.4	148.1	8,600	48.1	146.4	8,900	49.6	142.7	9,100	145
150	44.3	142.9	7,900	46.0	141.1	8,100	47.4	137.3	8,300	150
155	42.1	137.3	7,200	43.8	135.5	7,500	45.2	131.5	7,700	155
160	39.9	131.3	6,600	41.5	129.3	6,800	42.8	125.1	7,000	160
165	37.5	124.8	6,100	39.1	122.7	6,200	40.3	118.2	6,400	165
170	35.0	117.6	5,500	36.6	115.4	5,700	37.6	110.6	5,800	170
175	32.3	109.7	5,000	33.8	107.3	5,200	34.8	102.1	5,200	175
180	29.4	100.9	4,500	30.8	98.3	4,700	31.6	92.5	4,700	180
183	27.2	94.9	4,200	28.2	92.0	4,300	29.5	86.1	4,400	183
185	26.2	90.8	4,000	27.5	87.9	4,100				185
186	25.5	88.7	3,900	26.3	85.5	4,000				186
188				25.3	80.8	3,800				188



75,200 lb
+
0 lb



167.3 ft

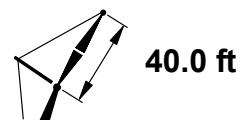
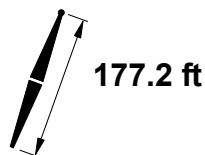
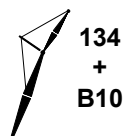


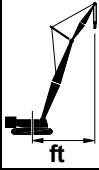
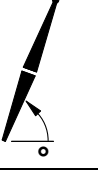
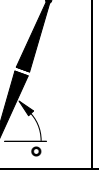
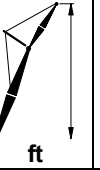
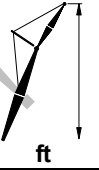
40.0 ft

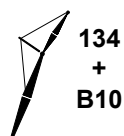
	5°			15°			25°			
	ft	ft	lb	ft	ft	lb	ft	ft	lb	ft
49	78.9	211.4	48,700							49
50	78.6	211.2	48,600							50
55	77.2	210.0	45,900							55
56	76.6	209.7	44,800	78.8	208.5	44,900				56
60	75.8	208.7	40,400	77.7	207.4	41,600				60
62	74.6	208.1	38,500	76.6	206.8	39,700	79.0	204.1	31,800	62
65	74.3	207.2	35,800	76.2	205.9	36,900	78.1	203.2	31,200	65
70	72.9	205.6	31,900	74.8	204.3	33,000	76.7	201.6	30,200	70
75	71.4	203.9	28,700	73.3	202.6	29,600	75.2	199.8	29,300	75
80	70.0	202.0	25,900	71.8	200.7	26,700	73.7	197.9	27,600	80
85	68.5	200.0	23,500	70.4	198.7	24,200	72.2	195.8	25,000	85
90	67.0	197.8	21,300	68.9	196.5	22,100	70.7	193.6	22,800	90
95	65.5	195.5	19,500	67.3	194.1	20,100	69.1	191.2	20,800	95
100	64.0	193.0	17,800	65.8	191.6	18,400	67.5	188.7	19,000	100
105	62.4	190.3	16,300	64.2	188.9	16,800	66.0	185.9	17,400	105
110	60.8	187.5	14,900	62.6	186.1	15,500	64.3	183.0	16,000	110
115	59.2	184.5	13,700	61.0	183.0	14,200	62.7	179.9	14,700	115
120	57.6	181.2	12,600	59.4	179.7	13,000	61.0	176.6	13,500	120
125	56.0	177.8	11,600	57.7	176.3	12,000	59.3	173.1	12,400	125
130	54.3	174.1	10,600	56.0	172.6	11,000	57.6	169.3	11,400	130
135	52.5	170.3	9,800	54.3	168.7	10,100	55.8	165.3	10,500	135
140	50.8	166.1	9,000	52.5	164.5	9,300	54.0	161.0	9,600	140
145	48.9	161.7	8,200	50.6	160.0	8,500	52.1	156.5	8,800	145
150	47.0	157.0	7,500	48.7	155.3	7,800	50.1	151.6	8,100	150
155	45.1	152.0	6,900	46.7	150.2	7,100	48.1	146.4	7,400	155
160	43.1	146.6	6,300	44.7	144.7	6,500	46.0	140.7	6,700	160
165	41.0	140.8	5,700	42.6	138.8	5,900	43.8	134.7	6,100	165
170	38.8	134.5	5,200	40.4	132.5	5,400	41.5	128.1	5,500	170
175	36.5	127.7	4,600	38.0	125.6	4,800	39.1	120.9	5,000	175
180	34.0	120.3	4,100	35.5	118.0	4,200	36.5	113.0	4,400	180
185	31.4	112.1	3,500	32.8	109.6	3,700	33.6	104.3	3,800	185
190	28.6	103.0	3,000	29.9	100.3	3,100	30.5	94.3	3,200	190
192							29.2	89.9	3,000	192

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ASME B30.5



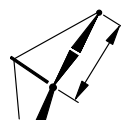
	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
51	78.8	221.1	48,100							51
55	77.8	220.1	45,600							55
58	76.4	219.4	42,300	78.8	218.1	43,500				58
60	76.4	218.9	40,000	78.2	217.6	41,400				60
64	75.2	217.8	36,400	76.4	216.5	37,600	79.0	213.8	31,700	64
65	75.1	217.5	35,400	76.9	216.2	36,600	78.7	213.5	31,500	65
70	73.7	216.0	31,600	75.5	214.7	32,700	77.3	211.9	30,500	70
75	72.3	214.3	28,300	74.1	213.0	29,300	75.9	210.2	29,700	75
80	70.9	212.6	25,500	72.7	211.2	26,400	74.5	208.4	27,300	80
85	69.5	210.6	23,100	71.3	209.3	23,900	73.0	206.5	24,800	85
90	68.1	208.6	21,000	69.9	207.2	21,700	71.6	204.4	22,500	90
95	66.7	206.4	19,100	68.4	205.0	19,800	70.1	202.1	20,500	95
100	65.2	204.0	17,400	67.0	202.6	18,100	68.7	199.7	18,700	100
105	63.8	201.5	15,900	65.5	200.1	16,500	67.2	197.1	17,100	105
110	62.3	198.8	14,500	64.0	197.4	15,100	65.7	194.4	15,700	110
115	60.8	196.0	13,300	62.5	194.5	13,800	64.1	191.5	14,300	115
120	59.3	192.9	12,200	61.0	191.5	12,700	62.5	188.4	13,200	120
125	57.7	189.7	11,200	59.4	188.2	11,600	61.0	185.1	12,100	125
130	56.1	186.3	10,200	57.8	184.8	10,700	59.3	181.6	11,100	130
135	54.5	182.7	9,400	56.2	181.1	9,800	57.7	177.8	10,100	135
140	52.9	178.9	8,600	54.5	177.3	8,900	56.0	173.9	9,300	140
145	51.2	174.8	7,800	52.8	173.1	8,200	54.2	169.7	8,500	145
150	49.4	170.4	7,100	51.1	168.8	7,400	52.4	165.2	7,700	150
155	47.7	165.8	6,500	49.3	164.1	6,800	50.6	160.4	7,000	155
160	45.8	160.9	5,900	47.4	159.1	6,100	48.7	155.4	6,400	160
165	43.9	155.7	5,300	45.5	153.8	5,600	46.7	149.9	5,800	165
170	42.0	150.1	4,600	43.5	148.2	4,900	44.7	144.1	5,200	170
175	39.9	144.1	4,100	41.4	142.1	4,300	42.6	137.8	4,500	175
180	37.8	137.6	3,500	39.3	135.5	3,700	40.3	131.0	3,900	180
185	35.5	130.6	3,000	37.0	128.3	3,200	37.9	123.6	3,300	185



75,200 lb
+
0 lb



187.0 ft

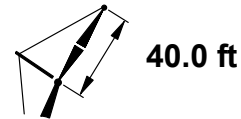
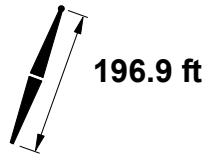
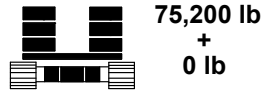
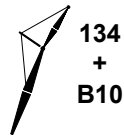


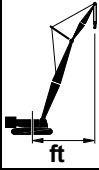
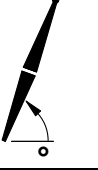
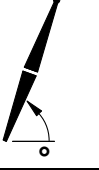
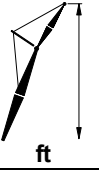
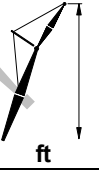
40.0 ft

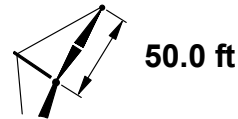
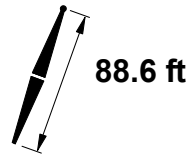
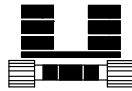
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
53	78.8	230.7	47,200							53
55	78.3	230.2	45,300							55
60	77.0	229.0	39,700	78.8	227.7	41,100				60
65	75.7	227.7	35,100	77.4	226.4	36,400				65
66	74.8	227.4	34,400	76.8	226.1	35,600	78.9	223.4	31,700	66
70	74.4	226.3	31,300	76.1	225.0	32,400	77.9	222.2	31,000	70
75	73.1	224.7	28,000	74.8	223.4	29,100	76.5	220.6	30,100	75
80	71.8	223.0	25,200	73.5	221.7	26,200	75.2	218.9	27,100	80
85	70.5	221.2	22,800	72.2	219.8	23,700	73.8	217.0	24,500	85
90	69.1	219.2	20,700	70.8	217.9	21,500	72.5	215.0	22,300	90
95	67.8	217.1	18,800	69.4	215.8	19,500	71.1	212.9	20,200	95
100	66.4	214.9	17,100	68.1	213.5	17,800	69.7	210.6	18,500	100
105	65.0	212.5	15,600	66.7	211.1	16,200	68.3	208.2	16,900	105
110	63.6	210.0	14,200	65.2	208.6	14,800	66.8	205.6	15,400	110
115	62.2	207.3	13,000	63.8	205.9	13,600	65.4	202.8	14,100	115
120	60.7	204.4	11,900	62.4	203.0	12,400	63.9	199.9	12,900	120
125	59.3	201.4	10,900	60.9	199.9	11,300	62.4	196.8	11,800	125
130	57.8	198.2	9,900	59.4	196.7	10,400	60.9	193.5	10,800	130
135	56.3	194.8	9,100	57.9	193.3	9,500	59.3	190.0	9,900	135
140	54.7	191.2	8,300	56.3	189.7	8,600	57.8	186.4	9,000	140
145	53.2	187.4	7,500	54.7	185.8	7,900	56.1	182.4	8,200	145
150	51.6	183.4	6,800	53.1	181.8	7,200	54.5	178.3	7,500	150
155	49.9	179.2	6,200	51.5	177.5	6,500	52.8	173.9	6,800	155
160	48.2	174.6	5,500	49.8	172.9	5,900	51.1	169.3	6,100	160
165	46.5	169.8	4,800	48.0	168.1	5,200	49.3	164.3	5,500	165
170	44.7	164.7	4,200	46.2	162.9	4,500	47.4	159.0	4,800	170
175	42.9	159.3	3,600	44.3	157.4	3,900	45.5	153.4	4,200	175
180	40.9	153.5	3,100	42.4	151.5	3,300	43.5	147.3	3,500	180
185							41.4	140.8	3,000	185

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ASME B30.5



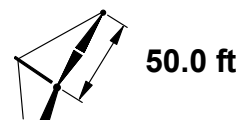
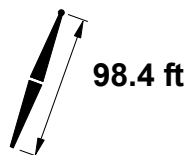
	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
55	78.8	240.3	45,000							55
60	77.6	239.2	39,400							60
61	76.8	238.9	38,500	79.0	237.6	39,800				61
65	76.3	237.9	34,800	78.0	236.6	36,100				65
68	75.4	237.1	32,500	76.4	235.8	33,700	78.9	233.0	31,700	68
70	75.1	236.5	31,000	76.7	235.2	32,100	78.4	232.4	31,400	70
75	73.8	235.0	27,700	75.5	233.7	28,800	77.1	230.9	29,800	75
80	72.6	233.4	24,900	74.2	232.1	25,900	75.8	229.3	26,900	80
85	71.3	231.7	22,400	72.9	230.3	23,300	74.5	227.5	24,300	85
90	70.0	229.8	20,300	71.6	228.5	21,100	73.2	225.6	22,000	90
95	68.7	227.8	18,400	70.3	226.4	19,200	71.9	223.5	20,000	95
100	67.4	225.7	16,700	69.0	224.3	17,500	70.6	221.4	18,200	100
105	66.1	223.4	15,200	67.7	222.0	15,900	69.3	219.1	16,600	105
110	64.8	221.0	13,900	66.4	219.6	14,500	67.9	216.6	15,100	110
115	63.4	218.5	12,600	65.0	217.0	13,200	66.5	214.0	13,800	115
120	62.1	215.8	11,500	63.6	214.3	12,100	65.1	211.3	12,600	120
125	60.7	212.9	10,500	62.2	211.4	11,000	63.7	208.3	11,500	125
130	59.3	209.9	9,500	60.8	208.4	10,000	62.3	205.2	10,500	130
135	57.9	206.7	8,700	59.4	205.2	9,100	60.8	202.0	9,500	135
140	56.4	203.3	7,900	57.9	201.8	8,300	59.3	198.5	8,700	140
145	54.9	199.8	7,100	56.5	198.2	7,500	57.8	194.9	7,900	145
150	53.4	196.0	6,400	54.9	194.4	6,800	56.3	191.0	7,100	150
155	51.9	192.0	5,600	53.4	190.4	6,100	54.7	186.9	6,400	155
160	50.3	187.9	4,900	51.8	186.2	5,300	53.1	182.6	5,700	160
165	48.7	183.4	4,300	50.2	181.7	4,700	51.4	178.0	5,000	165
170	47.1	178.7	3,600	48.5	176.9	4,000	49.8	173.2	4,300	170
175	45.4	173.7	3,100	46.8	171.9	3,400	48.0	168.0	3,700	175
180							46.2	162.6	3,100	180

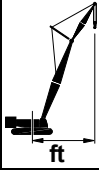
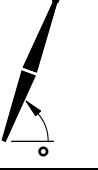
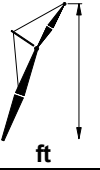
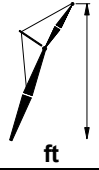
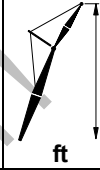


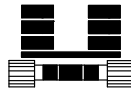
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
37	78.7	143.7	43,400							37
38	78.3	143.4	43,100							38
40	77.5	142.9	42,700							40
42	76.6	142.4	42,200							42
44	75.8	141.8	41,800							44
45	74.5	141.5	41,600	78.9	140.2	38,800				45
46	74.9	141.2	41,400	78.5	139.9	38,700				46
48	74.1	140.5	41,000	77.6	139.3	38,400				48
50	73.2	139.9	40,600	76.8	138.6	38,100				50
54	71.4	138.4	39,800	74.4	137.1	37,500	78.7	134.3	26,000	54
55	71.0	138.0	39,600	74.6	136.7	37,400	78.2	133.9	25,700	55
60	68.8	136.0	38,700	72.3	134.6	36,700	75.9	131.8	24,500	60
65	66.6	133.7	37,900	70.1	132.3	35,500	73.6	129.4	23,400	65
70	64.3	131.1	34,900	67.8	129.8	33,500	71.2	126.8	22,400	70
75	62.0	128.3	31,600	65.4	126.9	31,800	68.8	123.9	21,400	75
80	59.6	125.3	28,900	63.0	123.8	29,500	66.3	120.7	20,600	80
85	57.1	121.9	26,500	60.5	120.4	27,000	63.8	117.2	19,900	85
90	54.6	118.2	24,400	57.9	116.7	24,900	61.1	113.4	19,200	90
95	52.0	114.2	22,500	55.3	112.6	22,900	58.4	109.1	18,600	95
100	49.2	109.7	20,800	52.5	108.0	21,200	55.5	104.5	18,100	100
105	46.4	104.8	19,300	49.6	103.0	19,700	52.5	99.3	17,500	105
110	43.4	99.4	18,000	46.5	97.5	18,300	49.3	93.5	17,000	110
115	40.2	93.3	16,800	43.2	91.3	17,000	45.9	87.0	16,600	115
120	36.7	86.4	15,600	39.7	84.3	15,900	42.1	79.5	16,100	120
125	32.9	78.6	14,600	35.8	76.2	14,800	37.9	70.8	15,000	125
130	28.6	69.4	13,700	31.3	66.6	13,800	33.0	60.3	13,900	130
133	25.7	62.9	13,100	27.4	59.4	13,300	29.5	52.5	13,300	133
135				26.0	54.6	12,900				135

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ASME B30.5



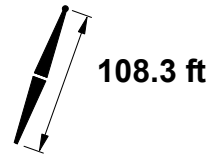
	5°			15°			25°			
 ft	 °	 ft	 lb	 °	 ft	 lb	 °	 ft	 lb	 ft
39	78.7	153.3	43,100							39
40	78.3	153.1	42,900							40
42	77.5	152.5	42,400							42
44	76.7	152.0	42,000							44
46	75.9	151.4	41,700							46
47	75.0	151.1	41,500	78.9	149.8	38,700				47
48	75.1	150.8	41,300	78.5	149.5	38,500				48
50	74.3	150.2	40,900	77.7	148.9	38,300				50
55	72.3	148.5	40,000	75.6	147.2	37,600				55
56	71.6	148.1	39,800	74.6	146.8	37,500	78.6	144.0	26,000	56
60	70.3	146.6	39,100	73.6	145.3	37,000	76.9	142.4	25,100	60
65	68.2	144.5	38,300	71.5	143.1	36,300	74.8	140.2	24,000	65
70	66.1	142.2	34,500	69.4	140.8	34,800	72.6	137.8	22,900	70
75	64.0	139.6	31,300	67.2	138.2	32,000	70.4	135.1	22,100	75
80	61.8	136.8	28,500	65.0	135.4	29,200	68.2	132.2	21,300	80
85	59.6	133.8	26,100	62.7	132.3	26,700	65.9	129.1	20,500	85
90	57.3	130.4	24,000	60.4	128.9	24,500	63.5	125.6	19,800	90
95	54.9	126.8	22,100	58.0	125.2	22,600	61.0	121.8	19,200	95
100	52.5	122.8	20,400	55.6	121.2	20,900	58.5	117.7	18,600	100
105	50.0	118.5	18,900	53.0	116.8	19,400	55.8	113.1	18,100	105
110	47.3	113.7	17,600	50.3	112.0	18,000	53.1	108.1	17,600	110
115	44.6	108.5	16,400	47.5	106.7	16,700	50.2	102.6	17,000	115
120	41.7	102.8	15,200	44.6	100.8	15,500	47.1	96.5	15,800	120
125	38.6	96.4	14,200	41.4	94.2	14,500	43.7	89.6	14,700	125
130	35.3	89.2	13,300	38.0	86.8	13,500	40.1	81.7	13,700	130
135	31.6	80.9	12,400	34.2	78.4	12,600	36.0	72.6	12,700	135
140	27.4	71.3	11,600	29.9	68.3	11,700	31.2	61.5	11,800	140
142	25.6	66.9	11,300	27.0	63.4	11,400	29.0	56.2	11,500	142
144				25.8	58.5	11,100				144



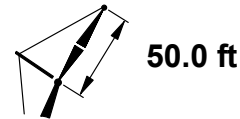
75,200 lb
+
0 lb



360°



108.3 ft

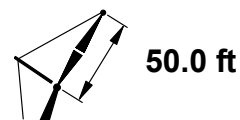
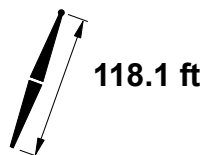
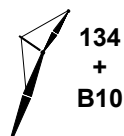


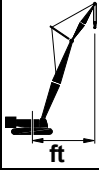
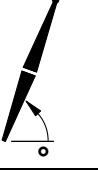
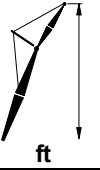
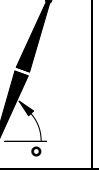
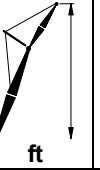
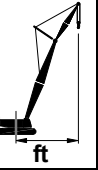
50.0 ft

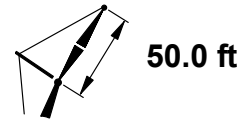
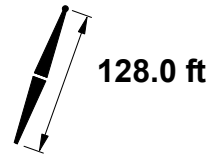
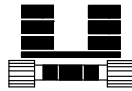
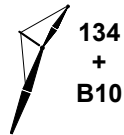
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
41	78.7	162.9	42,800							41
42	78.3	162.7	42,600							42
44	77.6	162.2	42,200							44
46	76.8	161.7	41,800							46
48	76.1	161.1	41,500							48
49	75.5	160.8	41,300	78.8	159.5	38,500				49
50	75.3	160.5	41,100	78.5	159.2	38,400				50
55	73.5	158.9	40,300	76.6	157.6	37,800				55
57	72.2	158.2	39,900	75.2	156.8	37,600	79.0	153.9	26,300	57
60	71.6	157.2	39,400	74.7	155.8	37,200	77.8	152.8	25,500	60
65	69.6	155.2	38,000	72.7	153.8	36,600	75.8	150.8	24,500	65
70	67.7	153.0	34,200	70.8	151.6	35,100	73.8	148.6	23,500	70
75	65.7	150.7	31,000	68.8	149.2	31,800	71.8	146.1	22,600	75
80	63.7	148.1	28,200	66.7	146.6	29,000	69.7	143.5	21,800	80
85	61.7	145.3	25,800	64.7	143.8	26,500	67.6	140.6	21,100	85
90	59.6	142.2	23,700	62.5	140.7	24,300	65.4	137.4	20,400	90
95	57.4	138.9	21,800	60.4	137.3	22,400	63.2	134.0	19,700	95
100	55.2	135.3	20,200	58.1	133.7	20,700	60.9	130.2	19,100	100
105	52.9	131.4	18,700	55.8	129.8	19,100	58.5	126.2	18,600	105
110	50.6	127.2	17,300	53.5	125.5	17,700	56.1	121.7	18,100	110
115	48.2	122.6	16,100	51.0	120.8	16,500	53.5	116.9	16,800	115
120	45.6	117.6	15,000	48.4	115.7	15,300	50.9	111.6	15,600	120
125	43.0	112.1	14,000	45.7	110.1	14,300	48.1	105.8	14,500	125
130	40.2	106.0	13,000	42.9	103.9	13,300	45.1	99.3	13,500	130
135	37.2	99.3	12,100	39.8	97.1	12,400	41.8	92.1	12,600	135
140	34.0	91.8	11,300	36.5	89.3	11,500	38.3	83.9	11,700	140
145	30.4	83.2	10,600	32.8	80.4	10,800	34.3	74.2	10,900	145
150	26.4	73.1	9,900	28.6	69.9	10,000	29.7	62.6	10,100	150
151	25.5	70.8	9,800	27.0	67.4	9,900				151
153				25.7	62.4	9,600				153

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ASME B30.5



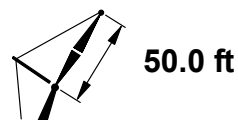
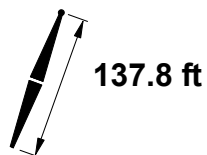
	5°			15°			25°			
 ft	 o	 ft	 lb	 o	 ft	 lb	 o	 ft	 lb	 ft
42	79.0	172.8	42,600							42
44	78.3	172.3	42,200							44
46	77.6	171.8	41,900							46
48	76.9	171.3	41,600							48
50	76.2	170.8	41,200							50
51	75.6	170.5	41,100	78.8	169.1	38,400				51
55	74.4	169.3	40,400	77.4	167.9	37,900				55
59	72.4	167.9	39,800	75.4	166.5	37,500	79.0	163.6	26,200	59
60	72.7	167.6	39,600	75.6	166.2	37,400	78.6	163.2	26,000	60
65	70.9	165.8	37,700	73.8	164.4	36,800	76.7	161.3	24,900	65
70	69.1	163.8	33,900	72.0	162.3	34,800	74.9	159.3	24,000	70
75	67.2	161.6	30,600	70.1	160.1	31,500	73.0	157.0	23,100	75
80	65.4	159.2	27,900	68.2	157.7	28,600	71.0	154.5	22,300	80
85	63.5	156.6	25,400	66.3	155.1	26,200	69.1	151.8	21,600	85
90	61.5	153.8	23,300	64.3	152.2	24,000	67.1	148.9	20,900	90
95	59.6	150.7	21,400	62.3	149.1	22,000	65.1	145.8	20,300	95
100	57.5	147.4	19,800	60.3	145.8	20,300	63.0	142.4	19,700	100
105	55.5	143.9	18,300	58.2	142.2	18,800	60.8	138.7	19,200	105
110	53.3	140.0	16,900	56.1	138.3	17,400	58.6	134.7	17,800	110
115	51.2	135.9	15,700	53.9	134.1	16,100	56.3	130.4	16,500	115
120	48.9	131.4	14,600	51.6	129.6	15,000	54.0	125.7	15,300	120
125	46.5	126.6	13,600	49.2	124.7	13,900	51.5	120.6	14,200	125
130	44.1	121.3	12,600	46.7	119.3	12,900	48.9	115.0	13,200	130
135	41.5	115.5	11,800	44.1	113.4	12,000	46.2	108.9	12,300	135
140	38.8	109.2	11,000	41.3	106.9	11,200	43.3	102.1	11,400	140
145	35.9	102.1	10,200	38.3	99.8	10,400	40.1	94.5	10,600	145
150	32.8	94.3	9,500	35.1	91.7	9,700	36.7	85.9	9,800	150
155	29.3	85.3	8,900	31.5	82.4	9,000	32.8	75.8	9,100	155
159	25.8	76.9	8,400	27.8	73.6	8,500	29.2	66.3	8,500	159
160	25.4	74.8	8,200	27.4	71.4	8,400				160
162				25.6	66.3	8,100				162

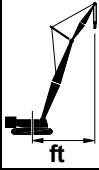
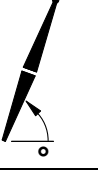
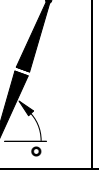
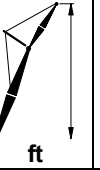


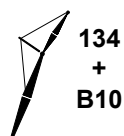
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
44	78.9	182.4	42,200							44
46	78.3	182.0	41,900							46
48	77.6	181.5	41,600							48
50	77.0	181.0	41,300							50
53	75.4	180.1	40,800	78.8	178.7	38,100				53
55	75.3	179.6	40,500	78.1	178.1	38,000				55
60	73.7	178.0	39,800	76.4	176.6	37,500				60
61	72.6	177.7	39,300	75.6	176.2	37,400	78.9	173.2	26,200	61
65	72.0	176.3	37,400	74.7	174.8	36,900	77.5	171.8	25,400	65
70	70.3	174.4	33,500	73.0	172.9	34,600	75.8	169.8	24,400	70
75	68.6	172.3	30,300	71.3	170.9	31,200	74.0	167.7	23,600	75
80	66.8	170.1	27,500	69.5	168.6	28,400	72.2	165.4	22,800	80
85	65.0	167.7	25,100	67.7	166.2	25,900	70.4	162.9	22,000	85
90	63.2	165.1	23,000	65.9	163.5	23,700	68.5	160.2	21,400	90
95	61.4	162.2	21,100	64.1	160.7	21,700	66.6	157.3	20,700	95
100	59.5	159.2	19,400	62.2	157.6	20,000	64.7	154.1	20,200	100
105	57.6	155.9	17,900	60.3	154.3	18,500	62.8	150.8	19,000	105
110	55.7	152.4	16,600	58.3	150.7	17,100	60.7	147.1	17,600	110
115	53.7	148.6	15,300	56.3	146.9	15,800	58.7	143.2	16,300	115
120	51.7	144.6	14,200	54.2	142.8	14,700	56.5	139.0	15,100	120
125	49.5	140.2	13,200	52.0	138.3	13,600	54.3	134.4	14,000	125
130	47.3	135.5	12,300	49.8	133.5	12,600	52.0	129.4	13,000	130
135	45.1	130.4	11,400	47.5	128.4	11,700	49.6	124.1	12,000	135
140	42.7	124.8	10,600	45.1	122.7	10,900	47.1	118.2	11,100	140
145	40.2	118.8	9,900	42.6	116.6	10,100	44.5	111.8	10,300	145
150	37.6	112.2	9,200	39.9	109.8	9,400	41.6	104.7	9,600	150
155	34.7	104.9	8,500	37.0	102.3	8,700	38.6	96.8	8,900	155
160	31.7	96.7	7,900	33.8	93.9	8,100	35.2	87.8	8,200	160
165	28.3	87.4	7,300	30.3	84.3	7,500	31.4	77.3	7,500	165
168	25.8	80.9	7,000	27.6	77.4	7,100	28.9	70.0	7,200	168
169	25.3	78.8	6,900	26.8	75.1	7,000				169
170				26.3	72.8	6,900				170
171				25.4	70.3	6,800				171

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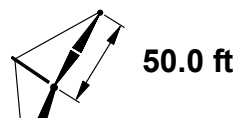
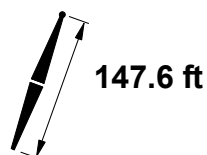
ASME B30.5



	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
46	78.9	192.1	41,800							46
48	78.3	191.6	41,600							48
50	77.7	191.1	41,200							50
55	76.1	189.8	40,500	78.8	188.4	37,900				55
60	74.5	188.3	39,900	77.2	186.9	37,500				60
63	72.8	187.3	38,200	75.8	185.9	37,200	78.9	182.8	26,100	63
65	72.9	186.7	37,000	75.6	185.2	37,000	78.2	182.1	25,800	65
70	71.3	184.9	33,200	73.9	183.4	34,300	76.6	180.3	24,900	70
75	69.7	183.0	29,900	72.3	181.5	30,900	74.9	178.3	24,000	75
80	68.1	180.9	27,100	70.7	179.4	28,100	73.2	176.2	23,200	80
85	66.4	178.6	24,700	69.0	177.1	25,600	71.5	173.8	22,500	85
90	64.8	176.2	22,600	67.3	174.6	23,400	69.8	171.3	21,800	90
95	63.0	173.5	20,700	65.6	172.0	21,400	68.0	168.6	21,200	95
100	61.3	170.7	19,000	63.8	169.1	19,700	66.3	165.7	20,300	100
105	59.5	167.7	17,500	62.0	166.0	18,100	64.4	162.5	18,700	105
110	57.7	164.4	16,200	60.2	162.7	16,700	62.6	159.2	17,300	110
115	55.9	160.9	15,000	58.4	159.2	15,500	60.7	155.6	16,000	115
120	54.0	157.2	13,800	56.5	155.4	14,300	58.7	151.7	14,800	120
125	52.1	153.2	12,800	54.5	151.4	13,200	56.7	147.5	13,700	125
130	50.1	148.9	11,900	52.5	147.1	12,300	54.6	143.1	12,600	130
135	48.0	144.3	11,000	50.4	142.4	11,400	52.5	138.3	11,700	135
140	45.9	139.4	10,200	48.2	137.4	10,500	50.3	133.1	10,800	140
145	43.7	134.0	9,500	46.0	131.9	9,800	47.9	127.5	10,000	145
150	41.4	128.2	8,800	43.7	126.1	9,000	45.5	121.3	9,300	150
155	39.0	122.0	8,100	41.2	119.6	8,400	42.9	114.7	8,600	155
160	36.4	115.1	7,500	38.6	112.6	7,700	40.2	107.3	7,900	160
165	33.7	107.5	6,900	35.7	104.8	7,100	37.2	99.0	7,300	165
170	30.7	99.0	6,400	32.7	96.1	6,600	33.9	89.7	6,600	170
175	27.4	89.3	5,900	29.3	86.1	6,000	30.2	78.8	6,100	175
176	26.3	87.1	5,800	28.2	83.7	5,900	29.4	76.3	6,000	176
178	25.2	82.8	5,600	26.6	78.9	5,700				178
180				25.4	74.2	5,500				180



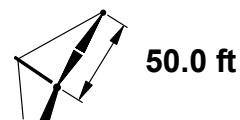
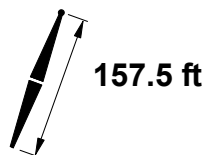
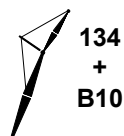
75,200 lb
+
0 lb

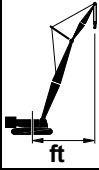
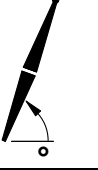
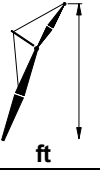
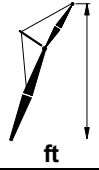
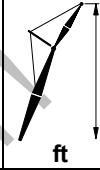


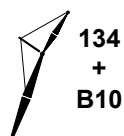
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
48	78.9	201.7	41,400							48
50	78.3	201.2	41,100							50
55	76.8	200.0	40,500							55
57	75.6	199.4	40,200	78.7	198.0	37,700				57
60	75.3	198.6	39,900	77.8	197.1	37,500				60
65	73.8	197.1	36,700	76.3	195.6	37,100	78.8	192.4	26,200	65
70	72.3	195.4	32,900	74.8	193.9	34,000	77.3	190.7	25,200	70
75	70.8	193.6	29,600	73.2	192.1	30,700	75.7	188.8	24,400	75
80	69.2	191.6	26,900	71.7	190.1	27,800	74.1	186.8	23,700	80
85	67.7	189.4	24,400	70.1	187.9	25,300	72.5	184.6	22,900	85
90	66.1	187.1	22,300	68.5	185.6	23,100	70.9	182.2	22,200	90
95	64.5	184.7	20,400	66.9	183.1	21,200	69.3	179.7	21,600	95
100	62.9	182.0	18,700	65.3	180.4	19,400	67.6	177.0	20,100	100
105	61.2	179.2	17,200	63.6	177.5	17,900	65.9	174.1	18,500	105
110	59.5	176.1	15,900	61.9	174.5	16,500	64.2	170.9	17,100	110
115	57.8	172.9	14,700	60.2	171.2	15,200	62.4	167.6	15,700	115
120	56.1	169.4	13,500	58.4	167.7	14,000	60.6	164.0	14,500	120
125	54.3	165.8	12,500	56.6	164.0	13,000	58.8	160.2	13,400	125
130	52.5	161.8	11,600	54.8	160.0	12,000	56.9	156.1	12,400	130
135	50.6	157.6	10,700	52.9	155.7	11,100	54.9	151.7	11,500	135
140	48.7	153.1	9,900	50.9	151.2	10,300	52.9	147.0	10,600	140
145	46.7	148.3	9,200	48.9	146.3	9,500	50.8	142.0	9,800	145
150	44.6	143.1	8,500	46.8	141.0	8,800	48.6	136.6	9,100	150
155	42.5	137.6	7,800	44.6	135.4	8,100	46.4	130.7	8,300	155
160	40.2	131.5	7,200	42.3	129.3	7,500	44.0	124.4	7,700	160
165	37.9	125.0	6,700	39.9	122.6	6,900	41.5	117.4	7,100	165
170	35.4	117.9	6,100	37.4	115.3	6,300	38.8	109.7	6,500	170
175	32.7	110.0	5,600	34.6	107.2	5,800	35.9	101.2	5,900	175
180	29.8	101.2	5,100	31.6	98.2	5,300	32.7	91.5	5,400	180
185	26.6	91.2	4,700	28.3	87.8	4,800	29.1	80.1	4,800	185
187	25.2	86.7	4,500	26.5	83.0	4,600				187
189				25.3	78.1	4,400				189

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ASME B30.5



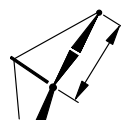
	5°			15°			25°			
										
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
50	78.9	211.3	40,900							50
55	77.4	210.1	40,300							55
58	76.4	209.3	40,000	79.0	207.9	37,500				58
60	76.0	208.8	39,700	78.4	207.3	37,400				60
65	74.6	207.4	36,400	77.0	205.9	37,000				65
67	73.6	206.7	34,900	75.6	205.2	35,700	78.8	202.1	26,100	67
70	73.2	205.8	32,600	75.5	204.3	33,800	77.9	201.1	25,600	70
75	71.7	204.1	29,300	74.1	202.5	30,400	76.5	199.3	24,800	75
80	70.3	202.2	26,500	72.6	200.6	27,500	75.0	197.4	24,000	80
85	68.8	200.2	24,100	71.1	198.6	25,000	73.4	195.3	23,300	85
90	67.3	198.0	21,900	69.6	196.4	22,800	71.9	193.1	22,700	90
95	65.8	195.7	20,000	68.1	194.1	20,800	70.4	190.7	21,600	95
100	64.3	193.2	18,400	66.6	191.5	19,100	68.8	188.1	19,800	100
105	62.7	190.5	16,900	65.0	188.9	17,500	67.2	185.4	18,200	105
110	61.1	187.6	15,500	63.4	186.0	16,100	65.6	182.4	16,800	110
115	59.5	184.6	14,300	61.8	182.9	14,900	63.9	179.3	15,400	115
120	57.9	181.4	13,200	60.1	179.7	13,700	62.3	176.0	14,200	120
125	56.3	178.0	12,100	58.5	176.2	12,600	60.5	172.5	13,100	125
130	54.6	174.3	11,200	56.8	172.5	11,700	58.8	168.7	12,100	130
135	52.8	170.4	10,300	55.0	168.6	10,800	57.0	164.7	11,200	135
140	51.0	166.3	9,500	53.2	164.4	9,900	55.2	160.4	10,300	140
145	49.2	161.9	8,800	51.4	159.9	9,200	53.3	155.8	9,500	145
150	47.3	157.2	8,100	49.5	155.2	8,400	51.3	150.9	8,700	150
155	45.4	152.2	7,400	47.5	150.1	7,800	49.3	145.6	8,000	155
160	43.4	146.8	6,800	45.5	144.6	7,100	47.2	140.0	7,400	160
165	41.3	141.0	6,300	43.3	138.7	6,500	45.0	133.9	6,700	165
170	39.1	134.7	5,700	41.1	132.4	6,000	42.6	127.3	6,200	170
175	36.8	128.0	5,200	38.7	125.5	5,400	40.2	120.0	5,600	175
180	34.4	120.6	4,800	36.3	117.9	4,900	37.6	112.1	5,100	180
185	31.8	112.4	4,300	33.6	109.5	4,500	34.7	103.2	4,600	185
190	28.9	103.3	3,700	30.6	100.2	3,900	31.6	93.2	4,000	190
194	25.6	95.0	3,400	27.6	91.6	3,500				194
195	25.8	93.0	3,300	27.4	89.4	3,400	28.8	83.9	3,500	195
196	25.1	90.7	3,200	26.3	87.0	3,300				196
198				25.2	82.1	3,100				198



75,200 lb
+
0 lb



167.3 ft

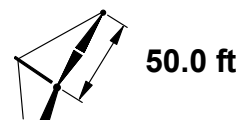
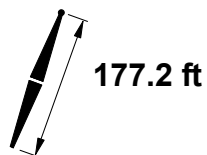


50.0 ft

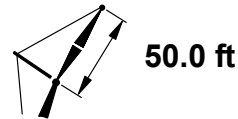
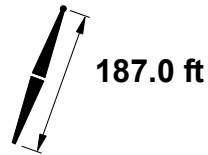
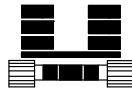
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
52	78.8	221.0	40,500							52
55	78.0	220.3	40,100							55
60	76.7	219.0	39,600	79.0	217.5	37,200				60
65	75.3	217.6	36,100	77.6	216.1	36,900				65
69	73.4	216.4	33,000	76.2	214.9	34,200	78.8	211.7	26,100	69
70	74.0	216.1	32,200	76.2	214.6	33,500	78.5	211.4	25,900	70
75	72.6	214.5	29,000	74.8	212.9	30,100	77.1	209.7	25,100	75
80	71.2	212.7	26,200	73.4	211.2	27,200	75.7	207.9	24,400	80
85	69.8	210.8	23,700	72.0	209.2	24,700	74.3	205.9	23,700	85
90	68.4	208.7	21,600	70.6	207.1	22,500	72.8	203.8	23,000	90
95	67.0	206.5	19,700	69.2	204.9	20,500	71.3	201.5	21,400	95
100	65.5	204.2	18,000	67.7	202.5	18,800	69.9	199.1	19,600	100
105	64.0	201.6	16,500	66.2	200.0	17,200	68.4	196.5	17,900	105
110	62.6	199.0	15,100	64.7	197.3	15,800	66.8	193.8	16,500	110
115	61.1	196.1	13,900	63.2	194.4	14,500	65.3	190.9	15,200	115
120	59.5	193.1	12,800	61.7	191.4	13,400	63.7	187.7	14,000	120
125	58.0	189.9	11,800	60.1	188.1	12,300	62.1	184.4	12,800	125
130	56.4	186.5	10,800	58.5	184.7	11,300	60.5	180.9	11,800	130
135	54.8	182.9	10,000	56.9	181.0	10,400	58.8	177.2	10,900	135
140	53.1	179.0	9,200	55.2	177.2	9,600	57.1	173.2	10,000	140
145	51.5	175.0	8,400	53.5	173.1	8,800	55.4	169.0	9,200	145
150	49.7	170.6	7,700	51.8	168.7	8,100	53.6	164.5	8,500	150
155	48.0	166.0	7,100	50.0	164.0	7,400	51.7	159.7	7,700	155
160	46.1	161.1	6,500	48.1	159.0	6,800	49.8	154.6	7,100	160
165	44.2	155.9	5,900	46.2	153.7	6,200	47.8	149.1	6,500	165
170	42.3	150.3	5,400	44.2	148.1	5,600	45.8	143.3	5,900	170
175	40.2	144.3	4,800	42.1	142.0	5,100	43.6	136.9	5,300	175
180	38.1	137.8	4,300	40.0	135.4	4,600	41.4	130.1	4,800	180
185	35.8	130.8	3,700	37.7	128.2	4,000	39.0	122.6	4,200	185
190	33.5	123.2	3,200	35.2	120.4	3,500	36.4	114.4	3,600	190
195				32.6	111.8	3,000	33.6	105.2	3,100	195

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ASME B30.5



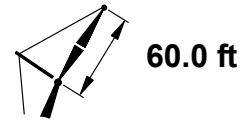
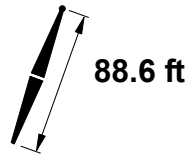
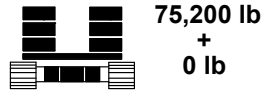
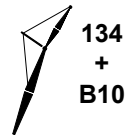
	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
54	78.8	230.6	39,900							54
55	78.5	230.4	39,800							55
60	77.3	229.2	39,300							60
62	76.2	228.7	37,900	78.9	227.1	36,900				62
65	76.0	227.9	35,800	78.1	226.3	36,700				65
70	74.7	226.4	31,900	76.8	224.9	33,200				70
71	73.8	226.1	31,200	75.8	224.6	32,600	78.8	221.3	26,100	71
75	73.4	224.9	28,600	75.5	223.3	29,800	77.7	220.0	25,500	75
80	72.0	223.2	25,800	74.2	221.6	26,900	76.3	218.3	24,700	80
85	70.7	221.3	23,400	72.8	219.8	24,400	75.0	216.4	24,000	85
90	69.4	219.4	21,200	71.5	217.8	22,200	73.6	214.4	23,100	90
95	68.0	217.3	19,300	70.1	215.7	20,200	72.2	212.3	21,100	95
100	66.6	215.1	17,600	68.7	213.4	18,500	70.8	210.0	19,300	100
105	65.3	212.7	16,100	67.4	211.0	16,900	69.4	207.5	17,700	105
110	63.9	210.1	14,800	65.9	208.5	15,500	68.0	205.0	16,200	110
115	62.4	207.4	13,500	64.5	205.8	14,200	66.5	202.2	14,900	115
120	61.0	204.6	12,400	63.1	202.9	13,000	65.0	199.3	13,600	120
125	59.5	201.6	11,400	61.6	199.8	12,000	63.5	196.2	12,500	125
130	58.0	198.4	10,400	60.1	196.6	11,000	62.0	192.9	11,500	130
135	56.5	195.0	9,600	58.6	193.2	10,100	60.4	189.4	10,600	135
140	55.0	191.4	8,800	57.0	189.6	9,200	58.9	185.7	9,700	140
145	53.4	187.6	8,000	55.4	185.7	8,500	57.2	181.8	8,900	145
150	51.8	183.6	7,300	53.8	181.7	7,700	55.6	177.6	8,100	150
155	50.2	179.3	6,700	52.1	177.4	7,100	53.9	173.2	7,400	155
160	48.5	174.8	6,100	50.4	172.8	6,400	52.1	168.5	6,800	160
165	46.8	170.0	5,500	48.7	168.0	5,800	50.3	163.5	6,100	165
170	45.0	164.9	4,900	46.9	162.8	5,300	48.5	158.2	5,600	170
175	43.1	159.5	4,300	45.0	157.3	4,600	46.5	152.5	5,000	175
180	41.2	153.7	3,700	43.1	151.4	4,100	44.5	146.4	4,300	180
185	39.2	147.5	3,200	41.0	145.1	3,500	42.4	139.9	3,700	185
190				38.9	138.3	3,000	40.2	132.8	3,200	190

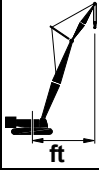
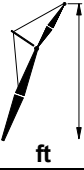
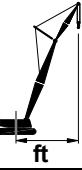


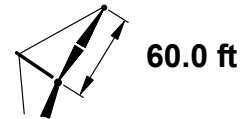
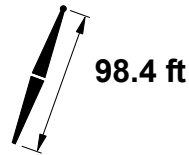
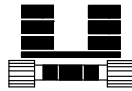
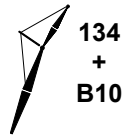
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
56	78.8	240.2	39,300							56
60	77.8	239.3	38,900							60
64	76.2	238.3	36,100	78.9	236.8	36,500				64
65	76.6	238.1	35,500	78.7	236.5	36,400				65
70	75.3	236.7	31,600	77.4	235.1	33,000				70
72	74.6	236.1	30,300	76.6	234.5	31,600	79.0	231.3	26,200	72
75	74.1	235.2	28,300	76.1	233.6	29,600	78.2	230.3	25,800	75
80	72.8	233.6	25,500	74.9	232.0	26,700	76.9	228.7	25,000	80
85	71.5	231.8	23,100	73.6	230.2	24,100	75.7	226.9	24,400	85
90	70.3	230.0	20,900	72.3	228.4	21,900	74.3	225.0	22,900	90
95	69.0	228.0	19,000	71.0	226.4	19,900	73.0	222.9	20,900	95
100	67.7	225.8	17,300	69.7	224.2	18,200	71.7	220.8	19,100	100
105	66.3	223.6	15,800	68.4	221.9	16,600	70.3	218.5	17,400	105
110	65.0	221.2	14,500	67.0	219.5	15,200	69.0	216.0	16,000	110
115	63.7	218.6	13,200	65.7	216.9	13,900	67.6	213.4	14,600	115
120	62.3	215.9	12,100	64.3	214.2	12,800	66.2	210.6	13,400	120
125	60.9	213.1	11,100	62.9	211.3	11,700	64.8	207.7	12,300	125
130	59.5	210.1	10,100	61.5	208.3	10,700	63.3	204.6	11,300	130
135	58.1	206.9	9,300	60.1	205.1	9,800	61.9	201.3	10,300	135
140	56.7	203.5	8,500	58.6	201.7	9,000	60.4	197.8	9,400	140
145	55.2	199.9	7,700	57.1	198.1	8,200	58.9	194.2	8,600	145
150	53.7	196.2	7,000	55.6	194.3	7,500	57.3	190.3	7,900	150
155	52.2	192.2	6,400	54.1	190.3	6,800	55.8	186.2	7,200	155
160	50.6	188.0	5,700	52.5	186.1	6,200	54.1	181.9	6,500	160
165	49.0	183.6	5,000	50.9	181.6	5,500	52.5	177.3	5,900	165
170	47.4	178.9	4,400	49.2	176.8	4,900	50.8	172.4	5,200	170
175	45.7	173.9	3,800	47.5	171.8	4,200	49.0	167.2	4,600	175
180	43.9	168.7	3,300	45.7	166.4	3,600	47.2	161.7	4,000	180
185				43.9	160.7	3,100	45.3	155.8	3,400	185

MLC150-1 S-1

ASME B30.5



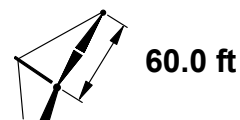
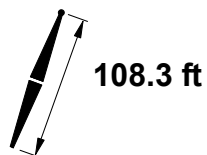
	5°			15°			25°			
 ft	 °	 ft	 lb	 °	 ft	 lb	 °	 ft	 lb	 ft
39	78.8	153.5	36,800							39
40	78.4	153.3	36,600							40
42	77.6	152.7	36,300							42
44	76.8	152.2	35,900							44
46	76.0	151.6	35,500							46
48	75.3	151.1	35,200							48
49	74.5	150.7	34,900	78.9	149.4	32,400				49
50	74.5	150.4	34,700	78.5	149.1	32,100				50
55	72.4	148.7	33,700	76.5	147.4	31,400				55
59	70.4	147.2	32,900	74.4	145.8	30,800	79.0	142.9	22,700	59
60	70.4	146.8	32,700	74.4	145.5	30,700	78.5	142.4	22,500	60
65	68.3	144.7	31,900	72.3	143.3	30,000	76.4	140.3	21,400	65
70	66.2	142.4	31,000	70.2	141.0	29,300	74.2	137.9	20,500	70
75	64.1	139.8	30,200	68.0	138.4	27,800	72.0	135.2	19,600	75
80	61.9	137.0	29,000	65.8	135.6	26,400	69.8	132.3	18,800	80
85	59.7	134.0	26,600	63.6	132.5	25,200	67.5	129.2	18,100	85
90	57.4	130.7	24,500	61.3	129.1	24,100	65.1	125.7	17,400	90
95	55.1	127.0	22,700	58.9	125.4	23,000	62.6	121.9	16,800	95
100	52.6	123.1	21,000	56.4	121.4	21,500	60.1	117.8	16,200	100
105	50.1	118.7	19,500	53.9	117.0	20,000	57.5	113.2	15,700	105
110	47.5	114.0	18,200	51.2	112.2	18,600	54.7	108.2	15,300	110
115	44.8	108.8	16,900	48.4	106.9	17,300	51.8	102.7	14,800	115
120	41.9	103.1	15,800	45.5	101.1	16,200	48.7	96.6	14,400	120
125	38.8	96.7	14,800	42.3	94.6	15,100	45.4	89.7	14,100	125
130	35.5	89.5	13,900	38.9	87.2	14,100	41.7	81.9	13,800	130
135	31.8	81.3	13,000	35.1	78.7	13,200	37.7	72.7	13,400	135
140	27.7	71.7	12,200	30.8	68.7	12,400	32.9	61.6	12,500	140
142	25.9	67.4	11,900	28.0	63.7	12,000	30.0	56.0	12,100	142
144				26.0	58.8	11,700	28.2	50.4	11,800	144
145				25.7	56.3	11,600				145



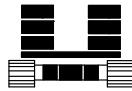
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
41	78.8	163.1	36,600							41
42	78.4	162.9	36,400							42
44	77.7	162.4	36,100							44
46	76.9	161.9	35,700							46
48	76.2	161.3	35,400							48
50	75.4	160.7	35,000							50
51	74.6	160.4	34,800	78.9	159.0	32,200				51
55	73.6	159.1	34,100	77.3	157.7	31,600				55
60	71.7	157.4	33,200	75.4	156.0	30,900				60
61	70.6	157.0	33,000	74.6	155.6	30,800	78.9	152.5	22,600	61
65	69.8	155.4	32,400	73.5	154.0	30,300	77.3	150.8	21,900	65
70	67.8	153.3	31,500	71.5	151.8	29,700	75.3	148.6	20,900	70
75	65.8	150.9	30,800	69.5	149.4	28,900	73.3	146.2	20,000	75
80	63.8	148.3	28,700	67.5	146.8	27,500	71.2	143.5	19,300	80
85	61.8	145.5	26,300	65.4	144.0	26,200	69.1	140.6	18,600	85
90	59.7	142.5	24,100	63.3	140.9	24,800	66.9	137.4	17,900	90
95	57.5	139.2	22,300	61.2	137.6	22,900	64.7	134.0	17,300	95
100	55.4	135.6	20,600	58.9	133.9	21,200	62.4	130.3	16,700	100
105	53.1	131.7	19,100	56.6	130.0	19,600	60.0	126.2	16,200	105
110	50.8	127.5	17,800	54.3	125.7	18,200	57.6	121.8	15,700	110
115	48.3	122.9	16,500	51.8	121.0	17,000	55.1	117.0	15,300	115
120	45.8	117.9	15,400	49.2	116.0	15,800	52.4	111.7	14,900	120
125	43.2	112.4	14,400	46.5	110.4	14,800	49.6	105.8	14,500	125
130	40.4	106.4	13,500	43.7	104.2	13,800	46.6	99.4	14,100	130
135	37.4	99.7	12,600	40.6	97.4	12,900	43.3	92.1	13,100	135
140	34.2	92.2	11,800	37.3	89.6	12,000	39.8	83.9	12,200	140
145	30.6	83.6	11,000	33.7	80.8	11,200	35.8	74.3	11,400	145
150	26.6	73.6	10,300	29.5	70.3	10,500	31.2	62.6	10,600	150
151	25.7	71.3	10,200	28.0	67.8	10,400	29.7	59.8	10,400	151
153				26.0	62.7	10,100	27.8	54.0	10,100	153
154				25.6	60.2	9,900				154

MLC150-1 S-1

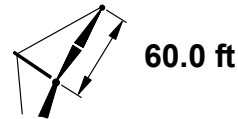
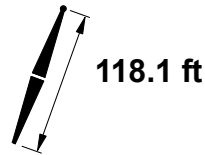
ASME B30.5



	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
43	78.7	172.8	36,300							43
44	78.4	172.5	36,200							44
46	77.7	172.0	35,800							46
48	77.0	171.5	35,500							48
50	76.3	171.0	35,200							50
53	74.8	170.1	34,700	78.8	168.7	32,100				53
55	74.6	169.5	34,400	78.1	168.1	31,800				55
60	72.8	167.8	33,500	76.3	166.4	31,200				60
63	70.8	166.7	33,000	74.8	165.3	30,800	78.9	162.1	22,600	63
65	71.0	166.0	32,700	74.5	164.5	30,500	78.1	161.3	22,300	65
70	69.2	164.0	31,900	72.7	162.5	29,900	76.3	159.2	21,300	70
75	67.3	161.8	31,200	70.8	160.3	29,400	74.4	157.0	20,500	75
80	65.5	159.4	28,400	68.9	157.9	28,500	72.5	154.5	19,700	80
85	63.6	156.8	26,000	67.0	155.2	26,800	70.5	151.8	19,000	85
90	61.6	154.0	23,800	65.1	152.4	24,600	68.5	148.9	18,400	90
95	59.7	150.9	22,000	63.1	149.3	22,700	66.5	145.8	17,700	95
100	57.7	147.7	20,300	61.1	146.0	20,900	64.4	142.3	17,200	100
105	55.6	144.1	18,800	59.0	142.4	19,400	62.2	138.7	16,700	105
110	53.5	140.3	17,500	56.8	138.5	18,000	60.0	134.7	16,200	110
115	51.3	136.1	16,200	54.6	134.3	16,700	57.7	130.3	15,700	115
120	49.0	131.7	15,100	52.3	129.8	15,600	55.4	125.6	15,400	120
125	46.7	126.8	14,100	49.9	124.9	14,500	52.9	120.5	14,900	125
130	44.3	121.6	13,200	47.5	119.5	13,500	50.3	115.0	13,900	130
135	41.7	115.8	12,300	44.8	113.7	12,600	47.6	108.8	12,900	135
140	39.0	109.5	11,500	42.1	107.2	11,800	44.7	102.1	12,100	140
145	36.1	102.5	10,800	39.1	100.0	11,000	41.5	94.5	11,200	145
150	33.0	94.7	10,100	35.9	92.0	10,300	38.1	85.9	10,500	150
155	29.5	85.7	9,400	32.3	82.8	9,600	34.2	75.8	9,700	155
160	25.6	75.3	8,800	28.3	71.8	8,900	29.6	63.6	9,000	160
161				27.0	69.2	8,800	28.6	60.7	8,900	161
163				25.4	64.1	8,600				163



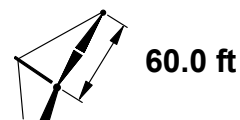
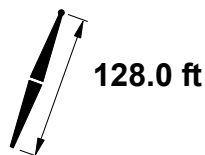
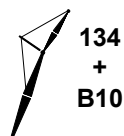
75,200 lb
+
0 lb

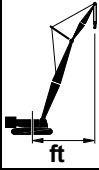
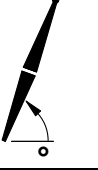
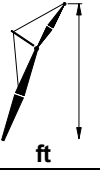
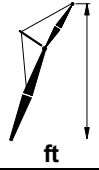
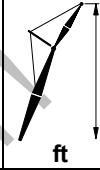


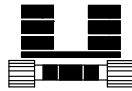
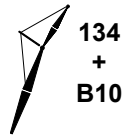
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
45	78.7	182.4	36,000							45
46	78.4	182.2	35,800							46
48	77.7	181.7	35,500							48
50	77.1	181.2	35,300							50
55	75.4	179.8	34,500	78.8	178.3	31,900				55
60	73.8	178.2	33,800	77.1	176.7	31,300				60
65	72.1	176.5	33,000	75.4	175.0	30,800	78.8	171.7	22,600	65
70	70.4	174.6	32,200	73.7	173.1	30,200	77.1	169.8	21,800	70
75	68.7	172.5	30,800	72.0	171.0	29,700	75.3	167.7	20,900	75
80	66.9	170.3	28,000	70.2	168.8	29,000	73.5	165.3	20,200	80
85	65.1	167.9	25,600	68.4	166.3	26,500	71.7	162.8	19,400	85
90	63.4	165.3	23,500	66.6	163.7	24,300	69.9	160.1	18,800	90
95	61.5	162.5	21,600	64.8	160.8	22,300	68.0	157.2	18,200	95
100	59.7	159.4	19,900	62.9	157.8	20,600	66.0	154.1	17,700	100
105	57.8	156.2	18,400	61.0	154.5	19,100	64.1	150.7	17,100	105
110	55.8	152.6	17,100	59.0	150.9	17,700	62.1	147.1	16,600	110
115	53.8	148.9	15,900	57.0	147.1	16,400	60.0	143.1	16,200	115
120	51.8	144.8	14,700	54.9	143.0	15,200	57.8	138.9	15,700	120
125	49.7	140.4	13,700	52.8	138.5	14,200	55.6	134.3	14,600	125
130	47.5	135.7	12,800	50.5	133.8	13,200	53.3	129.4	13,600	130
135	45.2	130.6	11,900	48.2	128.6	12,300	50.9	124.0	12,600	135
140	42.8	125.1	11,100	45.8	123.0	11,500	48.4	118.1	11,800	140
145	40.4	119.1	10,400	43.3	116.8	10,700	45.8	111.7	10,900	145
150	37.7	112.5	9,700	40.6	110.1	9,900	42.9	104.6	10,200	150
155	34.9	105.2	9,000	37.7	102.6	9,300	39.9	96.7	9,500	155
160	31.9	97.1	8,400	34.6	94.2	8,600	36.5	87.7	8,800	160
165	28.5	87.8	7,800	31.1	84.6	8,000	32.7	77.2	8,100	165
169	25.5	79.3	7,400	27.8	75.5	7,600	28.8	67.0	7,600	169
170				27.1	73.3	7,400	28.2	64.4	7,500	170
172				25.3	68.0	7,200				172

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ASME B30.5



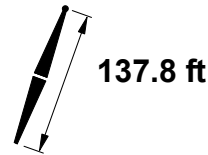
	5°			15°			25°			
										
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
46	79.0	192.3	35,800							46
48	78.4	191.8	35,600							48
50	77.8	191.3	35,300							50
55	76.2	190.0	34,600							55
57	75.2	189.4	34,300	78.8	187.9	31,700				57
60	74.6	188.5	33,900	77.8	187.0	31,500				60
65	73.0	186.9	33,200	76.2	185.4	30,900				65
67	72.2	186.2	32,900	75.2	184.7	30,700	78.8	181.3	22,600	67
70	71.4	185.1	32,500	74.6	183.6	30,300	77.8	180.2	22,100	70
75	69.8	183.2	30,500	73.0	181.7	29,800	76.2	178.2	21,300	75
80	68.2	181.1	27,700	71.3	179.5	28,700	74.5	176.1	20,500	80
85	66.5	178.8	25,200	69.6	177.2	26,200	72.8	173.7	19,800	85
90	64.9	176.4	23,100	68.0	174.8	24,000	71.0	171.2	19,200	90
95	63.2	173.8	21,200	66.2	172.1	22,000	69.3	168.5	18,600	95
100	61.4	170.9	19,600	64.5	169.3	20,300	67.5	165.6	18,100	100
105	59.7	167.9	18,100	62.7	166.2	18,700	65.7	162.4	17,500	105
110	57.9	164.6	16,700	60.9	162.9	17,300	63.8	159.1	17,100	110
115	56.0	161.2	15,500	59.0	159.4	16,100	61.9	155.5	16,600	115
120	54.1	157.4	14,400	57.1	155.6	14,900	59.9	151.6	15,400	120
125	52.2	153.4	13,400	55.2	151.6	13,900	57.9	147.4	14,300	125
130	50.2	149.2	12,400	53.2	147.2	12,900	55.9	143.0	13,300	130
135	48.2	144.6	11,600	51.1	142.6	12,000	53.7	138.1	12,400	135
140	46.1	139.6	10,800	48.9	137.6	11,100	51.5	133.0	11,500	140
145	43.9	134.3	10,000	46.7	132.2	10,400	49.2	127.3	10,700	145
150	41.5	128.5	9,300	44.3	126.3	9,600	46.7	121.2	9,900	150
155	39.1	122.3	8,700	41.9	119.9	9,000	44.1	114.5	9,200	155
160	36.6	115.4	8,100	39.3	112.9	8,300	41.4	107.1	8,500	160
165	33.8	107.8	7,500	36.4	105.1	7,700	38.4	98.9	7,900	165
170	30.9	99.4	7,000	33.4	96.4	7,200	35.1	89.5	7,300	170
175	27.6	89.7	6,500	30.0	86.4	6,600	31.4	78.6	6,700	175
178	25.4	83.2	6,200	27.2	79.3	6,300	28.0	70.7	6,300	178
179				26.6	77.0	6,200	27.9	68.1	6,200	179
180				26.1	74.6	6,100				180
181				25.2	71.9	6,000				181



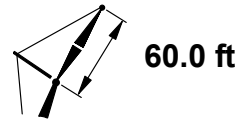
75,200 lb
+
0 lb



360°



137.8 ft

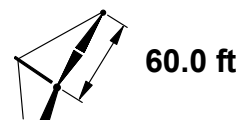
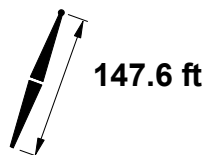
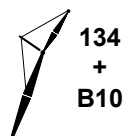


60.0 ft

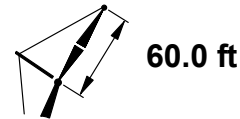
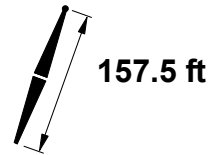
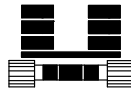
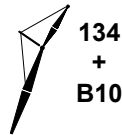
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
48	79.0	201.9	35,500							48
50	78.4	201.4	35,200							50
55	76.9	200.2	34,600							55
59	75.2	199.1	34,100	78.7	197.6	31,600				59
60	75.4	198.8	33,900	78.4	197.3	31,500				60
65	73.9	197.3	33,400	76.9	195.7	31,000				65
69	72.2	195.9	32,800	75.2	194.4	30,600	78.8	191.0	22,600	69
70	72.4	195.6	32,700	75.4	194.0	30,500	78.5	190.6	22,400	70
75	70.9	193.8	30,100	73.9	192.2	30,000	76.9	188.7	21,700	75
80	69.3	191.8	27,300	72.3	190.2	28,400	75.3	186.7	20,900	80
85	67.8	189.7	24,900	70.7	188.0	25,900	73.7	184.5	20,200	85
90	66.2	187.4	22,700	69.1	185.7	23,700	72.1	182.1	19,600	90
95	64.6	184.9	20,900	67.5	183.2	21,700	70.4	179.6	19,000	95
100	63.0	182.2	19,200	65.9	180.6	20,000	68.8	176.8	18,500	100
105	61.3	179.4	17,700	64.2	177.7	18,400	67.1	173.9	17,900	105
110	59.6	176.4	16,300	62.5	174.6	17,000	65.3	170.8	17,500	110
115	57.9	173.1	15,100	60.8	171.4	15,700	63.6	167.4	16,400	115
120	56.2	169.7	14,000	59.0	167.9	14,600	61.8	163.9	15,100	120
125	54.4	166.0	13,000	57.2	164.2	13,500	59.9	160.0	14,000	125
130	52.6	162.1	12,000	55.4	160.2	12,500	58.0	156.0	13,000	130
135	50.7	157.9	11,200	53.5	155.9	11,600	56.1	151.6	12,100	135
140	48.8	153.4	10,400	51.5	151.4	10,800	54.1	146.9	11,200	140
145	46.8	148.6	9,600	49.5	146.5	10,000	52.0	141.8	10,400	145
150	44.7	143.4	8,900	47.4	141.2	9,300	49.8	136.4	9,600	150
155	42.6	137.9	8,300	45.3	135.6	8,600	47.5	130.5	8,900	155
160	40.4	131.8	7,700	43.0	129.5	8,000	45.2	124.2	8,200	160
165	38.0	125.3	7,100	40.6	122.8	7,400	42.6	117.2	7,600	165
170	35.5	118.2	6,600	38.0	115.5	6,800	39.9	109.5	7,000	170
175	32.8	110.4	6,100	35.3	107.5	6,300	37.0	100.9	6,400	175
180	29.9	101.6	5,600	32.3	98.4	5,800	33.8	91.2	5,900	180
185	26.7	91.6	5,100	29.0	88.1	5,300	30.2	79.8	5,300	185
187	25.4	87.2	5,000	26.8	83.2	5,100	28.5	74.6	5,100	187
190				25.2	75.9	4,800				190

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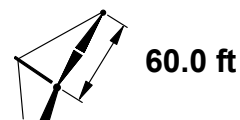
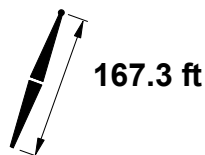
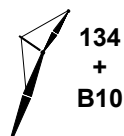
	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
50	78.9	211.5	35,100						50	
55	77.5	210.3	34,500						55	
60	76.1	209.0	34,000						60	
61	75.6	208.7	33,800	78.7	207.2	31,400			61	
65	74.7	207.6	33,400	77.6	206.0	31,000			65	
70	73.3	206.0	32,800	76.1	204.4	30,600			70	
71	72.6	205.6	32,200	75.6	204.1	30,500	78.8	200.6	71	22,600
75	71.8	204.3	29,800	74.7	202.7	30,100	77.6	199.1	75	21,900
80	70.4	202.4	27,000	73.2	200.8	28,100	76.1	197.2	80	21,200
85	68.9	200.4	24,600	71.7	198.7	25,600	74.6	195.2	85	20,600
90	67.4	198.2	22,400	70.2	196.6	23,400	73.0	192.9	90	19,900
95	65.9	195.9	20,600	68.7	194.2	21,500	71.5	190.5	95	19,400
100	64.4	193.4	18,900	67.1	191.7	19,700	69.9	188.0	100	18,900
105	62.8	190.7	17,400	65.6	189.0	18,200	68.3	185.2	105	18,300
110	61.2	187.9	16,000	64.0	186.1	16,700	66.7	182.3	110	17,500
115	59.6	184.8	14,800	62.4	183.1	15,500	65.0	179.2	115	16,100
120	58.0	181.6	13,700	60.7	179.8	14,300	63.4	175.8	120	14,900
125	56.4	178.2	12,700	59.1	176.4	13,200	61.7	172.3	125	13,800
130	54.7	174.6	11,700	57.4	172.7	12,300	59.9	168.5	130	12,800
135	52.9	170.7	10,800	55.6	168.8	11,400	58.1	164.5	135	11,800
140	51.2	166.5	10,000	53.8	164.6	10,500	56.3	160.2	140	11,000
145	49.3	162.1	9,300	52.0	160.1	9,700	54.4	155.6	145	10,200
150	47.5	157.5	8,600	50.1	155.4	9,000	52.4	150.7	150	9,400
155	45.5	152.4	8,000	48.1	150.3	8,300	50.4	145.4	155	8,700
160	43.5	147.1	7,400	46.1	144.8	7,700	48.3	139.8	160	8,000
165	41.4	141.3	6,800	43.9	138.9	7,100	46.0	133.7	165	7,400
170	39.3	135.0	6,300	41.7	132.6	6,600	43.7	127.0	170	6,800
175	37.0	128.3	5,800	39.4	125.7	6,000	41.3	119.8	175	6,200
180	34.5	120.9	5,300	36.9	118.1	5,500	38.6	111.8	180	5,700
185	31.9	112.8	4,800	34.2	109.8	5,000	35.8	102.9	185	5,200
190	29.1	103.7	4,400	31.3	100.4	4,600	32.6	92.8	190	4,700
195	26.0	93.4	4,000	28.0	89.7	4,100	29.0	81.0	195	4,200
196	25.3	91.2	3,900	27.3	87.2	4,000	28.3	78.4	196	4,100
199				25.1	79.8	3,700			199	



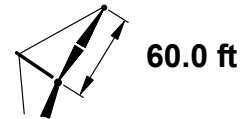
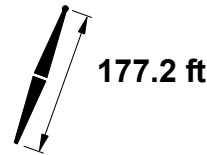
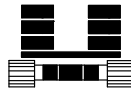
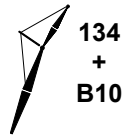
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
52	78.9	221.2	34,800							52
55	78.1	220.5	34,400							55
60	76.8	219.2	33,800							60
62	75.6	218.7	33,600	79.0	217.1	31,300				62
65	75.4	217.8	33,300	78.2	216.2	31,000				65
70	74.0	216.3	32,700	76.8	214.7	30,600				70
73	72.8	215.3	30,800	75.4	213.7	30,300	78.7	210.2	22,500	73
75	72.7	214.7	29,500	75.4	213.1	30,100	78.2	209.5	22,200	75
80	71.3	212.9	26,700	74.0	211.3	27,900	76.8	207.7	21,500	80
85	69.9	211.0	24,200	72.6	209.3	25,300	75.3	205.7	20,900	85
90	68.5	208.9	22,100	71.2	207.3	23,100	73.9	203.6	20,300	90
95	67.0	206.7	20,200	69.7	205.1	21,100	72.4	201.4	19,700	95
100	65.6	204.4	18,500	68.3	202.7	19,400	70.9	198.9	19,200	100
105	64.1	201.9	17,000	66.8	200.1	17,800	69.4	196.3	18,700	105
110	62.7	199.2	15,600	65.3	197.4	16,400	67.9	193.6	17,200	110
115	61.2	196.3	14,400	63.8	194.6	15,100	66.3	190.7	15,900	115
120	59.6	193.3	13,300	62.2	191.5	14,000	64.8	187.5	14,600	120
125	58.1	190.1	12,300	60.7	188.3	12,900	63.2	184.2	13,500	125
130	56.5	186.7	11,300	59.1	184.8	11,900	61.5	180.7	12,500	130
135	54.9	183.1	10,500	57.5	181.2	11,000	59.9	177.0	11,500	135
140	53.2	179.3	9,700	55.8	177.3	10,200	58.2	173.0	10,700	140
145	51.6	175.2	8,900	54.1	173.2	9,400	56.4	168.8	9,800	145
150	49.8	170.9	8,200	52.3	168.8	8,700	54.6	164.3	9,100	150
155	48.1	166.3	7,600	50.6	164.2	8,000	52.8	159.5	8,400	155
160	46.2	161.4	7,000	48.7	159.2	7,400	50.9	154.4	7,700	160
165	44.4	156.2	6,400	46.8	153.9	6,800	48.9	148.9	7,100	165
170	42.4	150.6	5,900	44.8	148.2	6,200	46.8	143.0	6,500	170
175	40.4	144.6	5,400	42.7	142.2	5,700	44.7	136.7	5,900	175
180	38.2	138.1	4,900	40.6	135.6	5,200	42.4	129.8	5,400	180
185	36.0	131.1	4,400	38.3	128.4	4,700	40.0	122.3	4,900	185
190	33.6	123.5	3,900	35.8	120.6	4,200	37.4	114.0	4,400	190
195	31.1	115.1	3,400	33.2	112.0	3,700	34.6	104.8	3,800	195
200	28.3	105.8	3,000	30.3	102.3	3,200	31.5	94.4	3,300	200

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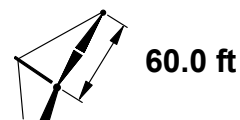
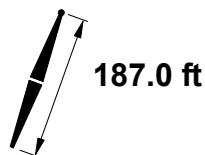
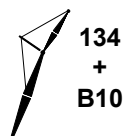
	5°			15°			25°			
	ft	o	ft	lb	ft	o	ft	lb	ft	
54	78.9	230.8	34,300							54
55	78.6	230.6	34,200							55
60	77.3	229.4	33,700							60
64	76.2	228.3	33,300	78.9	226.7	31,100				64
65	76.0	228.1	33,300	78.7	226.5	31,000				65
70	74.7	226.6	32,400	77.4	225.0	30,600				70
74	73.2	225.4	29,800	76.2	223.7	30,300	79.0	220.2	22,700	74
75	73.4	225.1	29,100	76.1	223.4	30,200	78.7	219.8	22,600	75
80	72.1	223.4	26,300	74.7	221.7	27,600	77.4	218.1	21,900	80
85	70.8	221.5	23,900	73.4	219.9	25,000	76.0	216.2	21,200	85
90	69.4	219.6	21,700	72.0	217.9	22,800	74.6	214.2	20,600	90
95	68.1	217.5	19,800	70.7	215.8	20,800	73.2	212.1	20,000	95
100	66.7	215.3	18,200	69.3	213.6	19,100	71.8	209.8	19,500	100
105	65.3	212.9	16,600	67.9	211.2	17,500	70.4	207.3	18,400	105
110	63.9	210.4	15,300	66.5	208.6	16,100	69.0	204.7	16,900	110
115	62.5	207.7	14,100	65.0	205.9	14,800	67.5	202.0	15,600	115
120	61.1	204.8	12,900	63.6	203.0	13,600	66.0	199.0	14,400	120
125	59.6	201.8	11,900	62.1	200.0	12,600	64.5	195.9	13,200	125
130	58.1	198.6	11,000	60.6	196.8	11,600	63.0	192.6	12,200	130
135	56.6	195.2	10,100	59.1	193.3	10,700	61.4	189.1	11,300	135
140	55.1	191.6	9,300	57.6	189.7	9,800	59.9	185.4	10,400	140
145	53.5	187.9	8,500	56.0	185.9	9,100	58.2	181.5	9,600	145
150	51.9	183.8	7,900	54.3	181.8	8,300	56.6	177.4	8,800	150
155	50.3	179.6	7,200	52.7	177.5	7,700	54.9	172.9	8,100	155
160	48.6	175.1	6,600	51.0	173.0	7,000	53.1	168.3	7,400	160
165	46.9	170.3	6,000	49.2	168.1	6,400	51.3	163.3	6,800	165
170	45.1	165.2	5,500	47.4	163.0	5,900	49.4	157.9	6,200	170
175	43.3	159.8	5,000	45.6	157.5	5,300	47.5	152.3	5,600	175
180	41.3	154.0	4,400	43.6	151.6	4,800	45.5	146.2	5,100	180
185	39.4	147.8	3,900	41.6	145.3	4,300	43.4	139.6	4,600	185
190	37.3	141.1	3,400	39.5	138.5	3,700	41.2	132.5	4,000	190
195				37.2	131.1	3,200	38.8	124.7	3,400	195

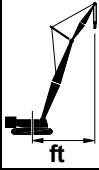
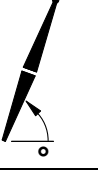
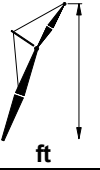
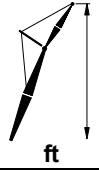
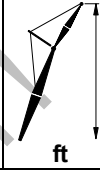


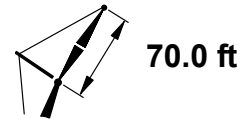
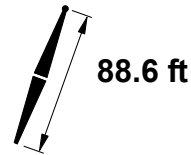
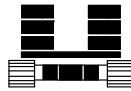
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
56	78.9	240.4	33,900							56
60	77.9	239.5	33,500							60
65	76.6	238.3	33,000							65
66	75.8	238.0	32,800	78.9	236.4	30,800				66
70	75.4	236.9	32,100	77.9	235.2	30,500				70
75	74.1	235.4	28,800	76.7	233.7	30,100				75
76	73.6	235.1	28,200	75.8	233.4	29,500	79.0	229.8	22,600	76
80	72.9	233.8	26,000	75.4	232.1	27,300	77.9	228.5	22,100	80
85	71.6	232.0	23,500	74.1	230.4	24,800	76.6	226.7	21,500	85
90	70.3	230.2	21,400	72.8	228.5	22,500	75.3	224.8	20,900	90
95	69.0	228.2	19,500	71.5	226.5	20,500	74.0	222.7	20,400	95
100	67.7	226.0	17,800	70.2	224.3	18,800	72.7	220.5	19,800	100
105	66.4	223.8	16,300	68.9	222.1	17,200	71.3	218.2	18,100	105
110	65.1	221.4	14,900	67.5	219.6	15,800	69.9	215.8	16,600	110
115	63.8	218.8	13,700	66.2	217.1	14,500	68.6	213.1	15,300	115
120	62.4	216.1	12,500	64.8	214.3	13,300	67.2	210.4	14,100	120
125	61.0	213.3	11,500	63.4	211.5	12,200	65.8	207.4	12,900	125
130	59.6	210.3	10,600	62.0	208.4	11,200	64.3	204.3	11,900	130
135	58.2	207.1	9,700	60.6	205.2	10,300	62.8	201.1	11,000	135
140	56.8	203.7	8,900	59.1	201.8	9,500	61.4	197.6	10,100	140
145	55.3	200.2	8,200	57.6	198.2	8,700	59.8	193.9	9,300	145
150	53.8	196.4	7,500	56.1	194.4	8,000	58.3	190.0	8,500	150
155	52.3	192.5	6,800	54.6	190.4	7,300	56.7	185.9	7,800	155
160	50.7	188.3	6,200	53.0	186.2	6,700	55.1	181.6	7,100	160
165	49.1	183.9	5,600	51.4	181.7	6,100	53.4	177.0	6,500	165
170	47.5	179.2	5,000	49.7	177.0	5,500	51.7	172.1	5,900	170
175	45.8	174.2	4,400	48.0	172.0	4,900	50.0	166.9	5,300	175
180	44.0	168.9	3,900	46.2	166.6	4,300	48.1	161.4	4,700	180
185	42.2	163.3	3,300	44.4	160.9	3,800	46.2	155.5	4,100	185
190				42.5	154.8	3,200	44.3	149.2	3,500	190
195							42.2	142.4	3,000	195

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ASME B30.5



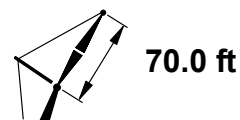
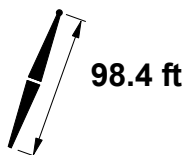
	5°			15°			25°			
 ft	 °	 ft	 lb	 °	 ft	 lb	 °	 ft	 lb	 ft
58	78.8	250.1	33,400							58
60	78.4	249.6	33,200							60
65	77.2	248.4	32,800							65
68	75.8	247.6	32,200	78.9	246.0	30,500				68
70	76.0	247.1	31,700	78.4	245.4	30,400				70
75	74.8	245.7	28,500	77.2	244.0	30,000				75
78	73.4	244.7	26,800	75.8	243.1	28,200	78.9	239.4	22,600	78
80	73.6	244.1	25,600	76.0	242.4	27,000	78.4	238.8	22,300	80
85	72.4	242.5	23,200	74.8	240.8	24,500	77.2	237.1	21,700	85
90	71.1	240.7	21,100	73.5	239.0	22,300	75.9	235.2	21,200	90
95	69.9	238.8	19,200	72.3	237.1	20,300	74.7	233.3	20,600	95
100	68.7	236.8	17,500	71.0	235.0	18,500	73.4	231.2	19,600	100
105	67.4	234.6	16,000	69.8	232.9	16,900	72.1	229.0	17,900	105
110	66.2	232.3	14,600	68.5	230.6	15,500	70.8	226.7	16,400	110
115	64.9	229.9	13,400	67.2	228.1	14,200	69.5	224.2	15,100	115
120	63.6	227.3	12,200	65.9	225.5	13,000	68.2	221.6	13,800	120
125	62.3	224.6	11,200	64.6	222.8	12,000	66.9	218.8	12,700	125
130	61.0	221.8	10,300	63.3	219.9	11,000	65.5	215.8	11,700	130
135	59.6	218.8	9,400	61.9	216.9	10,100	64.1	212.7	10,700	135
140	58.2	215.6	8,600	60.5	213.7	9,200	62.7	209.5	9,800	140
145	56.9	212.2	7,800	59.1	210.3	8,400	61.3	206.0	9,000	145
150	55.5	208.7	7,100	57.7	206.7	7,700	59.8	202.4	8,200	150
155	54.0	205.0	6,500	56.3	203.0	7,000	58.3	198.5	7,500	155
160	52.6	201.1	5,800	54.8	199.0	6,400	56.8	194.5	6,800	160
165	51.1	197.0	5,200	53.3	194.9	5,800	55.3	190.2	6,200	165
170	49.5	192.6	4,600	51.7	190.5	5,100	53.7	185.7	5,600	170
175	48.0	188.0	4,000	50.2	185.8	4,500	52.1	180.9	5,000	175
180	46.4	183.1	3,400	48.5	180.9	3,900	50.4	175.9	4,300	180
185				46.9	175.7	3,300	48.7	170.5	3,700	185
190							46.9	164.8	3,200	190

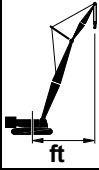
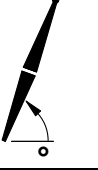
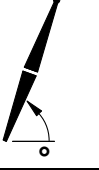
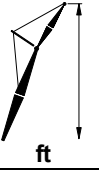
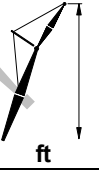


	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
40	79.0	163.6	31,400							40
42	78.3	163.1	31,000							42
44	77.5	162.6	30,700							44
46	76.8	162.1	30,300							46
48	76.0	161.5	29,900							48
50	75.3	161.0	29,600							50
53	73.8	160.0	29,100	78.6	158.7	27,200				53
55	73.4	159.4	28,700	77.9	158.1	27,000				55
60	71.5	157.6	27,900	76.0	156.3	26,300				60
65	69.6	155.6	27,200	74.0	154.3	25,600	78.6	151.2	20,200	65
70	67.7	153.5	26,400	72.1	152.1	25,000	76.6	149.0	19,200	70
75	65.7	151.1	25,800	70.1	149.8	24,400	74.6	146.5	18,400	75
80	63.7	148.6	25,100	68.1	147.2	23,800	72.5	143.9	17,700	80
85	61.7	145.8	24,400	66.0	144.3	22,800	70.4	141.0	16,900	85
90	59.6	142.7	23,800	63.9	141.3	21,700	68.2	137.8	16,300	90
95	57.4	139.4	22,800	61.7	137.9	20,700	66.0	134.4	15,700	95
100	55.2	135.8	21,200	59.5	134.3	19,800	63.7	130.7	15,100	100
105	53.0	132.0	19,700	57.2	130.4	19,000	61.4	126.6	14,600	105
110	50.7	127.8	18,300	54.9	126.1	18,200	58.9	122.2	14,200	110
115	48.2	123.2	17,100	52.4	121.5	17,600	56.4	117.4	13,700	115
120	45.7	118.2	16,000	49.8	116.4	16,400	53.7	112.1	13,300	120
125	43.1	112.7	15,000	47.2	110.8	15,400	50.9	106.3	12,900	125
130	40.3	106.7	14,100	44.3	104.7	14,400	48.0	99.9	12,600	130
135	37.3	100.0	13,200	41.3	97.9	13,500	44.8	92.7	12,300	135
140	34.1	92.6	12,400	38.0	90.2	12,700	41.3	84.5	12,100	140
145	30.6	84.0	11,700	34.4	81.4	11,900	37.3	75.0	11,900	145
150	26.6	74.1	11,000	30.2	71.1	11,100	32.7	63.5	11,300	150
151	25.7	71.9	10,800	29.0	68.5	11,000	30.8	60.5	11,100	151
155				25.3	58.2	10,400	26.9	48.3	10,500	155

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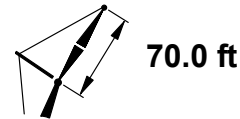
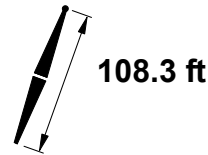
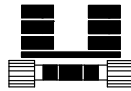
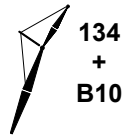
ASME B30.5



	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
42	78.9	173.2	31,200							42
44	78.3	172.8	30,800							44
46	77.6	172.3	30,500							46
48	76.9	171.7	30,100							48
50	76.2	171.2	29,800							50
54	74.4	170.0	29,200	79.0	168.7	27,300				54
55	74.4	169.7	29,000	78.6	168.4	27,100				55
60	72.6	168.1	28,300	76.8	166.7	26,500				60
65	70.9	166.2	27,500	75.0	164.8	25,900				65
66	69.8	165.8	27,400	74.6	164.4	25,800	79.0	161.2	20,300	66
70	69.0	164.2	26,800	73.2	162.8	25,300	77.5	159.5	19,600	70
75	67.2	162.0	26,100	71.3	160.6	24,700	75.6	157.3	18,800	75
80	65.4	159.6	25,500	69.5	158.2	24,200	73.7	154.8	18,000	80
85	63.5	157.0	24,900	67.6	155.6	23,600	71.7	152.1	17,400	85
90	61.5	154.2	24,300	65.6	152.7	22,500	69.7	149.2	16,700	90
95	59.6	151.2	22,400	63.6	149.7	21,500	67.7	146.1	16,100	95
100	57.6	147.9	20,800	61.6	146.4	20,600	65.6	142.7	15,600	100
105	55.5	144.4	19,300	59.5	142.8	19,800	63.5	139.0	15,100	105
110	53.4	140.6	17,900	57.4	138.9	18,500	61.3	135.0	14,600	110
115	51.2	136.4	16,700	55.2	134.7	17,200	59.0	130.7	14,200	115
120	49.0	132.0	15,600	52.9	130.2	16,100	56.6	126.0	13,800	120
125	46.6	127.1	14,600	50.5	125.3	15,000	54.2	120.9	13,400	125
130	44.2	121.9	13,700	48.0	120.0	14,100	51.6	115.4	13,100	130
135	41.6	116.2	12,800	45.4	114.1	13,200	48.9	109.3	12,800	135
140	38.9	109.9	12,000	42.7	107.7	12,300	46.0	102.5	12,500	140
145	36.0	102.9	11,300	39.7	100.6	11,500	42.9	95.0	11,800	145
150	32.9	95.1	10,600	36.5	92.6	10,800	39.4	86.4	11,000	150
155	29.5	86.2	9,900	33.0	83.4	10,100	35.6	76.4	10,300	155
160	25.6	75.8	9,300	29.0	72.6	9,500	31.1	64.3	9,600	160
163				25.8	64.7	9,100	27.8	55.4	9,200	163
164				25.2	62.1	9,000				164

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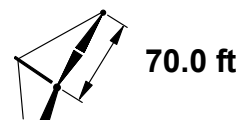
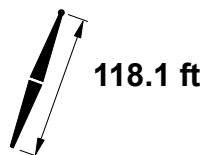
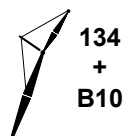
ASME B30.5



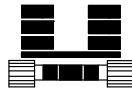
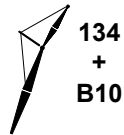
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
44	78.9	182.9	31,000							44
46	78.3	182.4	30,600							46
48	77.6	181.9	30,300							48
50	76.9	181.4	30,000							50
55	75.3	180.0	29,200							55
56	74.6	179.7	29,100	78.9	178.3	27,100				56
60	73.6	178.4	28,500	77.6	177.0	26,700				60
65	72.0	176.7	27,800	75.9	175.3	26,100				65
68	70.4	175.6	27,400	74.4	174.2	25,700	78.9	170.8	20,300	68
70	70.3	174.8	27,100	74.2	173.4	25,500	78.2	170.0	20,000	70
75	68.5	172.8	26,500	72.4	171.3	25,000	76.5	167.9	19,200	75
80	66.8	170.6	25,900	70.7	169.1	24,500	74.7	165.6	18,400	80
85	65.0	168.1	25,300	68.9	166.6	23,900	72.9	163.1	17,800	85
90	63.2	165.5	24,000	67.1	164.0	23,300	71.0	160.4	17,100	90
95	61.4	162.7	22,100	65.3	161.2	22,300	69.1	157.5	16,500	95
100	59.6	159.7	20,500	63.4	158.1	21,200	67.2	154.4	16,000	100
105	57.7	156.4	19,000	61.5	154.8	19,600	65.2	151.0	15,500	105
110	55.7	152.9	17,600	59.5	151.3	18,300	63.2	147.3	15,000	110
115	53.7	149.1	16,400	57.5	147.4	17,000	61.1	143.4	14,600	115
120	51.7	145.1	15,300	55.4	143.3	15,800	59.0	139.2	14,200	120
125	49.6	140.7	14,300	53.3	138.9	14,800	56.8	134.6	13,800	125
130	47.4	136.0	13,400	51.1	134.2	13,800	54.5	129.7	13,400	130
135	45.1	131.0	12,500	48.8	129.0	12,900	52.1	124.4	13,100	135
140	42.8	125.5	11,700	46.4	123.4	12,100	49.6	118.5	12,400	140
145	40.3	119.5	11,000	43.8	117.3	11,300	47.0	112.1	11,600	145
150	37.7	112.9	10,300	41.2	110.6	10,600	44.2	105.1	10,800	150
155	34.9	105.6	9,600	38.3	103.2	9,900	41.1	97.2	10,100	155
160	31.8	97.5	9,000	35.2	94.8	9,300	37.8	88.2	9,400	160
165	28.5	88.3	8,500	31.7	85.3	8,700	34.0	77.8	8,800	165
169	25.5	79.8	8,000	27.8	76.3	8,200	30.0	67.7	8,300	169
170				27.8	74.0	8,100	29.6	65.1	8,200	170
172				25.7	68.7	7,900	27.5	59.1	7,900	172
173				25.1	66.0	7,700				173

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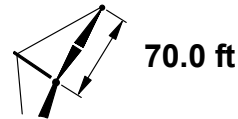
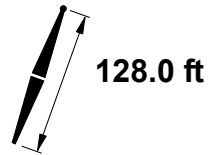
ASME B30.5



	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
46	78.9	192.5	30,700							46
48	78.3	192.0	30,400							48
50	77.6	191.5	30,100							50
55	76.1	190.2	29,400							55
58	74.8	189.3	29,000	78.9	187.9	27,000				58
60	74.5	188.8	28,700	78.3	187.3	26,800				60
65	72.9	187.1	28,000	76.7	185.7	26,200				65
70	71.3	185.4	27,400	75.0	183.9	25,700	78.9	180.4	20,300	70
75	69.7	183.4	26,800	73.4	182.0	25,200	77.2	178.5	19,500	75
80	68.1	181.3	26,200	71.8	179.8	24,700	75.6	176.3	18,800	80
85	66.4	179.1	25,600	70.1	177.6	24,200	73.9	174.0	18,100	85
90	64.7	176.6	23,600	68.4	175.1	23,800	72.1	171.4	17,500	90
95	63.0	174.0	21,800	66.7	172.4	22,600	70.4	168.7	16,900	95
100	61.3	171.2	20,100	64.9	169.6	20,900	68.6	165.8	16,400	100
105	59.6	168.2	18,600	63.2	166.5	19,300	66.8	162.7	15,900	105
110	57.8	164.9	17,200	61.4	163.2	17,900	64.9	159.3	15,400	110
115	55.9	161.4	16,000	59.5	159.7	16,700	63.0	155.7	15,000	115
120	54.1	157.7	14,900	57.6	156.0	15,500	61.0	151.8	14,600	120
125	52.1	153.7	13,900	55.7	151.9	14,400	59.0	147.7	14,200	125
130	50.1	149.5	13,000	53.6	147.6	13,500	57.0	143.2	13,900	130
135	48.1	144.9	12,100	51.6	143.0	12,600	54.8	138.4	13,000	135
140	46.0	140.0	11,300	49.4	138.0	11,700	52.6	133.3	12,100	140
145	43.8	134.6	10,600	47.2	132.6	11,000	50.3	127.6	11,300	145
150	41.5	128.9	9,900	44.9	126.7	10,200	47.9	121.5	10,600	150
155	39.1	122.6	9,200	42.4	120.4	9,500	45.3	114.9	9,800	155
160	36.5	115.8	8,600	39.8	113.4	8,900	42.5	107.5	9,200	160
165	33.8	108.3	8,100	37.0	105.6	8,300	39.6	99.3	8,500	165
170	30.8	99.8	7,500	34.0	97.0	7,700	36.3	90.0	7,900	170
175	27.6	90.3	7,000	30.6	87.1	7,200	32.6	79.1	7,300	175
178	25.4	83.8	6,700	27.6	80.0	6,900	29.6	71.1	7,000	178
180				26.7	75.4	6,700	28.2	65.8	6,800	180
181				25.9	72.7	6,600	27.2	62.8	6,600	181



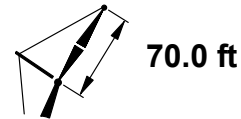
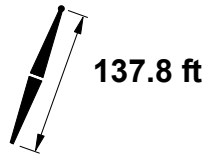
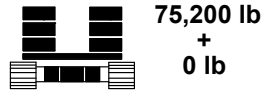
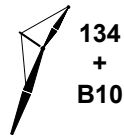
75,200 lb
+
0 lb



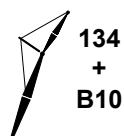
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
49	78.8	202.1	28,800							49
50	78.5	201.9	28,700							50
55	77.1	200.7	28,100							55
60	75.6	199.3	27,400							60
61	74.8	199.0	27,300	78.8	197.5	25,400				61
65	74.1	197.8	26,800	77.6	196.3	25,000				65
70	72.6	196.1	26,200	76.1	194.6	24,500				70
73	71.4	195.1	25,900	74.8	193.6	24,300	78.8	190.0	21,100	73
75	71.0	194.4	25,700	74.6	192.8	24,100	78.2	189.3	20,700	75
80	69.5	192.4	25,200	73.0	190.9	23,600	76.6	187.3	20,000	80
85	68.0	190.3	24,700	71.5	188.7	23,200	75.0	185.1	19,300	85
90	66.4	188.0	23,400	69.9	186.5	22,800	73.4	182.8	18,600	90
95	64.8	185.6	21,500	68.3	184.0	22,400	71.8	180.3	18,000	95
100	63.2	183.0	19,800	66.6	181.4	20,700	70.1	177.6	17,400	100
105	61.5	180.2	18,300	65.0	178.5	19,100	68.4	174.7	16,900	105
110	59.9	177.2	17,000	63.3	175.5	17,700	66.7	171.6	16,400	110
115	58.2	174.0	15,700	61.6	172.3	16,400	64.9	168.3	15,900	115
120	56.4	170.6	14,600	59.8	168.9	15,300	63.1	164.8	15,500	120
125	54.7	167.0	13,600	58.0	165.2	14,200	61.3	161.0	14,800	125
130	52.8	163.1	12,700	56.2	161.3	13,200	59.4	157.0	13,800	130
135	51.0	159.0	11,800	54.3	157.1	12,300	57.5	152.6	12,800	135
140	49.1	154.5	11,000	52.4	152.6	11,500	55.5	148.0	11,900	140
145	47.1	149.8	10,300	50.4	147.8	10,700	53.4	143.1	11,100	145
150	45.1	144.7	9,600	48.3	142.6	10,000	51.3	137.7	10,400	150
155	42.9	139.2	8,900	46.2	137.1	9,300	49.0	131.9	9,600	155
160	40.7	133.3	8,300	43.9	131.1	8,700	46.7	125.7	9,000	160
165	38.4	126.9	7,700	41.5	124.6	8,100	44.2	118.8	8,300	165
170	35.9	120.0	7,200	39.0	117.4	7,500	41.5	111.3	7,700	170
175	33.3	112.3	6,700	36.3	109.6	7,000	38.7	103.0	7,200	175
180	30.5	103.7	6,200	33.4	100.8	6,500	35.5	93.5	6,600	180
185	27.4	94.1	5,800	30.2	90.8	6,000	32.0	82.5	6,100	185
188	25.3	87.6	5,500	27.6	83.7	5,700	29.0	74.6	5,800	188
190				26.5	79.0	5,500	27.8	69.3	5,600	190
191				25.7	76.4	5,400	26.9	66.2	5,500	191

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ASME B30.5



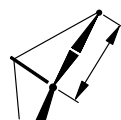
	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
51	78.8	211.7	28,600							51
55	77.7	210.8	28,100							55
60	76.3	209.5	27,500							60
63	74.8	208.7	27,200	78.8	207.2	25,300				63
65	74.8	208.1	27,000	78.2	206.6	25,000				65
70	73.4	206.5	26,400	76.8	205.0	24,600				70
75	72.0	204.8	25,900	75.3	203.3	24,200	78.8	199.6	21,000	75
80	70.5	203.0	25,400	73.9	201.4	23,800	77.3	197.8	20,300	80
85	69.0	201.0	24,800	72.4	199.4	23,400	75.8	195.7	19,600	85
90	67.6	198.8	23,000	70.9	197.3	23,000	74.3	193.5	19,000	90
95	66.1	196.6	21,100	69.4	194.9	22,100	72.7	191.1	18,300	95
100	64.5	194.1	19,400	67.8	192.5	20,400	71.2	188.6	17,800	100
105	63.0	191.5	17,900	66.3	189.8	18,800	69.6	185.9	17,300	105
110	61.4	188.7	16,600	64.7	187.0	17,400	68.0	183.0	16,700	110
115	59.8	185.7	15,300	63.1	184.0	16,100	66.3	179.9	16,200	115
120	58.2	182.5	14,200	61.5	180.8	14,900	64.7	176.7	15,600	120
125	56.6	179.1	13,200	59.8	177.3	13,900	62.9	173.1	14,500	125
130	54.9	175.5	12,300	58.1	173.7	12,900	61.2	169.4	13,500	130
135	53.2	171.7	11,400	56.4	169.8	12,000	59.4	165.4	12,500	135
140	51.4	167.6	10,600	54.6	165.7	11,100	57.6	161.2	11,600	140
145	49.6	163.3	9,900	52.8	161.3	10,300	55.7	156.7	10,800	145
150	47.7	158.6	9,200	50.9	156.6	9,600	53.8	151.8	10,100	150
155	45.8	153.7	8,500	48.9	151.6	8,900	51.7	146.6	9,300	155
160	43.8	148.4	7,900	46.9	146.2	8,300	49.7	141.1	8,700	160
165	41.8	142.7	7,300	44.8	140.5	7,700	47.5	135.1	8,000	165
170	39.6	136.6	6,800	42.6	134.2	7,100	45.2	128.5	7,400	170
175	37.3	130.0	6,300	40.3	127.4	6,600	42.7	121.4	6,900	175
180	34.9	122.7	5,800	37.8	120.1	6,100	40.2	113.6	6,300	180
185	32.4	114.8	5,400	35.2	111.9	5,600	37.4	105.0	5,800	185
190	29.6	105.9	5,000	32.4	102.8	5,200	34.3	95.2	5,300	190
195	26.6	96.0	4,600	29.2	92.5	4,700	30.8	83.8	4,800	195
197	25.2	91.6	4,400	27.4	87.6	4,600	28.4	78.3	4,600	197
200				25.6	80.3	4,300	26.7	70.0	4,400	200



75,200 lb
+
0 lb



147.6 ft

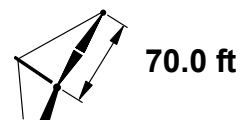
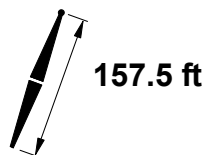
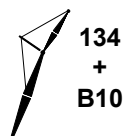


70.0 ft

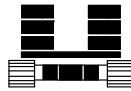
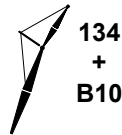
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
53	78.8	221.4	28,400							53
55	78.2	220.9	28,100							55
60	76.9	219.7	27,600							60
65	75.5	218.3	27,000	78.8	216.8	25,100				65
70	74.2	216.8	26,500	77.4	215.3	24,700				70
75	72.8	215.2	26,000	76.0	213.7	24,300				75
77	71.6	214.5	25,800	75.2	212.9	24,200	78.8	209.3	21,000	77
80	71.4	213.5	25,500	74.6	211.9	23,900	77.9	208.2	20,600	80
85	70.0	211.6	24,800	73.2	210.0	23,600	76.5	206.2	19,900	85
90	68.6	209.6	22,700	71.8	207.9	23,100	75.1	204.2	19,300	90
95	67.2	207.4	20,800	70.4	205.8	21,800	73.6	201.9	18,600	95
100	65.8	205.1	19,100	68.9	203.4	20,100	72.1	199.5	18,100	100
105	64.3	202.6	17,600	67.5	200.9	18,500	70.6	197.0	17,500	105
110	62.8	199.9	16,300	66.0	198.3	17,100	69.1	194.3	17,100	110
115	61.3	197.1	15,000	64.5	195.4	15,800	67.6	191.4	16,600	115
120	59.8	194.2	13,900	62.9	192.4	14,700	66.0	188.3	15,400	120
125	58.3	191.0	12,900	61.4	189.2	13,600	64.4	185.0	14,300	125
130	56.7	187.6	12,000	59.8	185.8	12,600	62.8	181.5	13,300	130
135	55.1	184.1	11,100	58.2	182.2	11,700	61.1	177.8	12,300	135
140	53.5	180.3	10,300	56.5	178.4	10,900	59.4	173.9	11,400	140
145	51.8	176.3	9,500	54.8	174.3	10,100	57.7	169.7	10,600	145
150	50.1	172.0	8,900	53.1	170.0	9,300	55.9	165.3	9,800	150
155	48.3	167.5	8,200	51.3	165.4	8,700	54.1	160.6	9,100	155
160	46.5	162.6	7,600	49.5	160.5	8,000	52.2	155.5	8,400	160
165	44.6	157.5	7,000	47.6	155.3	7,400	50.2	150.1	7,800	165
170	42.7	152.0	6,500	45.6	149.7	6,900	48.2	144.3	7,200	170
175	40.7	146.1	6,000	43.6	143.7	6,300	46.0	138.1	6,700	175
180	38.6	139.7	5,500	41.4	137.3	5,800	43.8	131.3	6,100	180
185	36.4	132.9	5,100	39.2	130.2	5,400	41.4	124.0	5,600	185
190	34.0	125.4	4,700	36.8	122.6	4,900	38.9	115.9	5,100	190
195	31.5	117.2	4,300	34.2	114.2	4,500	36.1	106.9	4,700	195
200	28.8	108.1	3,800	31.4	104.8	4,100	33.1	96.7	4,200	200
205	25.8	97.8	3,400	28.3	94.1	3,600	29.7	85.0	3,700	205
206	25.2	95.5	3,300	27.3	91.6	3,500	28.3	82.2	3,600	206
208				25.8	86.7	3,300	27.4	76.8	3,400	208
209				25.5	84.3	3,200				209

MLC150-1 S-1

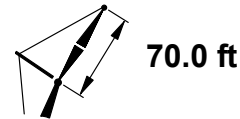
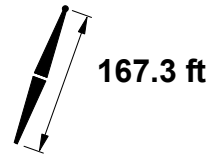
ASME B30.5



	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
54	79.0	231.2	28,000							54
55	78.8	231.0	27,900							55
60	77.5	229.8	27,500							60
65	76.2	228.5	27,000							65
67	75.2	228.0	26,800	78.8	226.4	24,900				67
70	74.9	227.1	26,600	78.0	225.5	24,700				70
75	73.6	225.6	26,000	76.7	224.0	24,400				75
79	72.2	224.3	25,700	75.2	222.6	24,100	78.8	218.9	21,000	79
80	72.3	223.9	25,600	75.3	222.3	24,000	78.5	218.5	20,900	80
85	70.9	222.1	24,500	74.0	220.5	23,600	77.1	216.7	20,200	85
90	69.6	220.2	22,300	72.7	218.6	23,300	75.8	214.7	19,600	90
95	68.2	218.1	20,400	71.3	216.5	21,600	74.4	212.6	19,000	95
100	66.9	215.9	18,800	69.9	214.3	19,800	73.0	210.3	18,500	100
105	65.5	213.6	17,200	68.5	211.9	18,200	71.6	207.9	17,900	105
110	64.1	211.1	15,900	67.1	209.4	16,800	70.1	205.4	17,500	110
115	62.7	208.4	14,700	65.7	206.7	15,500	68.7	202.6	16,400	115
120	61.3	205.6	13,500	64.3	203.9	14,300	67.2	199.7	15,100	120
125	59.8	202.6	12,500	62.8	200.8	13,300	65.7	196.7	14,000	125
130	58.3	199.5	11,600	61.3	197.7	12,300	64.2	193.4	13,000	130
135	56.8	196.1	10,700	59.8	194.3	11,400	62.6	189.9	12,000	135
140	55.3	192.6	9,900	58.2	190.7	10,500	61.0	186.3	11,100	140
145	53.7	188.8	9,100	56.7	186.9	9,700	59.4	182.4	10,300	145
150	52.2	184.9	8,500	55.0	182.9	9,000	57.8	178.3	9,500	150
155	50.5	180.7	7,800	53.4	178.7	8,300	56.1	173.9	8,800	155
160	48.9	176.2	7,200	51.7	174.2	7,700	54.3	169.3	8,100	160
165	47.1	171.5	6,600	50.0	169.4	7,100	52.5	164.4	7,500	165
170	45.4	166.5	6,100	48.2	164.3	6,500	50.7	159.1	6,900	170
175	43.5	161.2	5,600	46.3	158.9	6,000	48.8	153.5	6,300	175
180	41.6	155.5	5,100	44.4	153.1	5,500	46.8	147.5	5,800	180
185	39.7	149.3	4,700	42.4	146.9	5,000	44.7	141.0	5,300	185
190	37.6	142.8	4,200	40.3	140.2	4,600	42.5	134.0	4,800	190
195	35.5	135.7	3,700	38.1	133.0	4,100	40.2	126.4	4,400	195
200	33.2	128.0	3,300	35.7	125.1	3,600	37.7	118.1	3,800	200
205				33.2	116.4	3,100	35.0	108.8	3,300	205



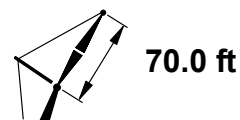
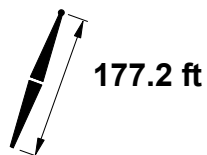
75,200 lb
+
0 lb

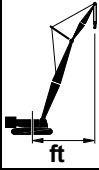
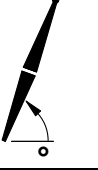
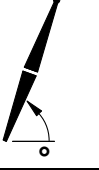
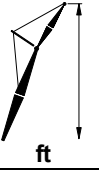
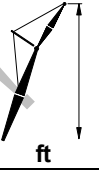


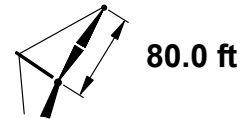
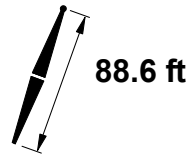
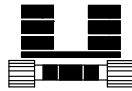
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
56	79.0	240.9	27,500							56
60	78.0	240.0	27,200							60
65	76.8	238.7	26,800							65
68	75.4	237.9	26,500	79.0	236.3	24,800				68
70	75.5	237.4	26,400	78.5	235.8	24,700				70
75	74.3	235.9	25,900	77.2	234.3	24,400				75
80	73.0	234.3	25,500	76.0	232.7	24,000	79.0	228.9	21,100	80
85	71.8	232.6	24,100	74.7	231.0	23,700	77.7	227.1	20,500	85
90	70.5	230.8	22,000	73.4	229.1	23,200	76.4	225.2	19,800	90
95	69.2	228.8	20,100	72.1	227.1	21,300	75.1	223.2	19,300	95
100	67.9	226.7	18,400	70.8	225.0	19,500	73.8	221.1	18,700	100
105	66.6	224.5	16,900	69.5	222.8	17,900	72.4	218.8	18,200	105
110	65.3	222.1	15,500	68.2	220.4	16,500	71.0	216.3	17,500	110
115	63.9	219.6	14,300	66.8	217.8	15,200	69.7	213.7	16,100	115
120	62.6	216.9	13,200	65.4	215.1	14,000	68.3	211.0	14,900	120
125	61.2	214.1	12,100	64.0	212.3	12,900	66.9	208.1	13,700	125
130	59.8	211.1	11,200	62.6	209.3	11,900	65.4	205.0	12,700	130
135	58.4	208.0	10,300	61.2	206.1	11,000	64.0	201.8	11,700	135
140	56.9	204.6	9,500	59.8	202.8	10,200	62.5	198.3	10,800	140
145	55.5	201.1	8,800	58.3	199.2	9,400	61.0	194.7	10,000	145
150	54.0	197.4	8,100	56.8	195.5	8,700	59.4	190.9	9,300	150
155	52.5	193.5	7,400	55.2	191.5	8,000	57.9	186.8	8,500	155
160	50.9	189.4	6,800	53.7	187.3	7,400	56.2	182.5	7,900	160
165	49.3	185.0	6,300	52.1	182.9	6,800	54.6	178.0	7,200	165
170	47.7	180.4	5,700	50.4	178.2	6,200	52.9	173.2	6,600	170
175	46.0	175.5	5,200	48.7	173.3	5,700	51.1	168.0	6,100	175
180	44.3	170.3	4,700	47.0	168.0	5,200	49.3	162.6	5,500	180
185	42.5	164.7	4,200	45.2	162.4	4,700	47.5	156.8	5,000	185
190	40.7	158.8	3,700	43.3	156.4	4,100	45.5	150.5	4,500	190
195	38.7	152.5	3,200	41.3	150.0	3,600	43.5	143.9	4,000	195
200				39.3	143.1	3,100	41.3	136.6	3,400	200

MLC150-1 S-1

ASME B30.5



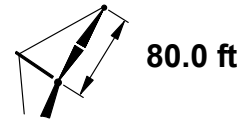
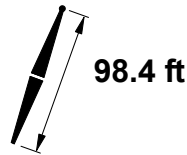
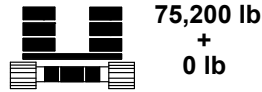
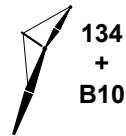
	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
58	78.9	250.5	27,000							58
60	78.5	250.1	26,900							60
65	77.3	248.9	26,500							65
70	76.1	247.6	26,100	79.0	246.0	24,700				70
75	74.9	246.2	25,700	77.8	244.5	24,300				75
80	73.7	244.6	25,300	76.6	243.0	24,100				80
82	72.6	244.0	24,700	75.6	242.3	23,900	79.0	238.5	21,100	82
85	72.5	243.0	23,800	75.3	241.4	23,700	78.2	237.5	20,700	85
90	71.3	241.3	21,600	74.1	239.6	23,000	77.0	235.7	20,100	90
95	70.1	239.4	19,700	72.9	237.7	21,000	75.7	233.7	19,500	95
100	68.8	237.4	18,000	71.6	235.7	19,200	74.5	231.7	19,000	100
105	67.6	235.2	16,500	70.4	233.5	17,600	73.2	229.5	18,500	105
110	66.3	233.0	15,200	69.1	231.3	16,200	71.9	227.2	17,200	110
115	65.0	230.6	13,900	67.8	228.8	14,900	70.6	224.7	15,800	115
120	63.7	228.1	12,800	66.5	226.3	13,700	69.2	222.1	14,600	120
125	62.4	225.4	11,800	65.2	223.6	12,600	67.9	219.4	13,500	125
130	61.1	222.6	10,800	63.9	220.7	11,600	66.5	216.5	12,400	130
135	59.8	219.6	9,900	62.5	217.7	10,700	65.2	213.4	11,400	135
140	58.4	216.4	9,100	61.1	214.6	9,800	63.8	210.2	10,600	140
145	57.0	213.1	8,400	59.8	211.2	9,100	62.4	206.8	9,700	145
150	55.6	209.6	7,700	58.3	207.7	8,300	60.9	203.2	8,900	150
155	54.2	206.0	7,000	56.9	204.0	7,600	59.4	199.4	8,200	155
160	52.8	202.1	6,400	55.4	200.1	7,000	57.9	195.4	7,500	160
165	51.3	198.0	5,900	53.9	196.0	6,400	56.4	191.1	6,900	165
170	49.8	193.7	5,300	52.4	191.6	5,800	54.8	186.7	6,300	170
175	48.2	189.2	4,700	50.8	187.0	5,300	53.2	181.9	5,800	175
180	46.6	184.4	4,100	49.2	182.2	4,700	51.5	176.9	5,200	180
185	45.0	179.3	3,600	47.6	177.0	4,100	49.8	171.6	4,600	185
190	43.3	173.9	3,100	45.8	171.6	3,600	48.1	166.0	4,100	190
195				44.1	165.8	3,100	46.2	160.0	3,500	195
200							44.3	153.5	3,000	200

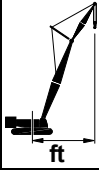
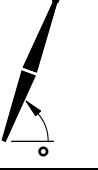
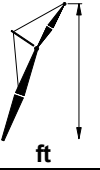
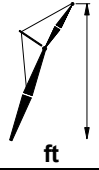
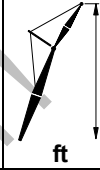


	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
42	78.9	173.7	23,500							42
44	78.2	173.2	23,300							44
46	77.5	172.7	23,100							46
48	76.8	172.2	22,900							48
50	76.1	171.7	22,700							50
55	74.4	170.2	22,200							55
56	73.6	169.9	22,100	78.8	168.7	21,800				56
60	72.6	168.6	21,700	77.4	167.4	21,400				60
65	70.8	166.8	21,200	75.6	165.6	20,800				65
70	69.0	164.8	20,700	73.8	163.6	20,200	78.8	160.5	18,600	70
75	67.2	162.7	20,200	72.0	161.4	19,700	76.9	158.2	18,000	75
80	65.3	160.3	19,800	70.1	159.1	19,200	75.0	155.8	17,100	80
85	63.5	157.8	19,400	68.2	156.5	18,700	73.1	153.2	16,300	85
90	61.5	155.0	18,900	66.3	153.7	18,200	71.1	150.3	15,600	90
95	59.6	152.0	18,600	64.3	150.7	17,800	69.1	147.3	15,000	95
100	57.6	148.8	18,200	62.3	147.4	17,300	67.0	143.9	14,400	100
105	55.5	145.3	17,700	60.2	143.9	16,900	64.9	140.3	13,800	105
110	53.4	141.6	17,200	58.1	140.1	16,400	62.7	136.4	13,300	110
115	51.3	137.5	16,700	55.9	136.0	16,100	60.5	132.2	12,800	115
120	49.0	133.1	16,100	53.6	131.6	15,700	58.1	127.6	12,400	120
125	46.7	128.4	15,100	51.3	126.8	15,200	55.7	122.6	12,000	125
130	44.3	123.2	14,200	48.9	121.5	14,600	53.2	117.2	11,600	130
135	41.8	117.6	13,300	46.3	115.8	13,700	50.5	111.2	11,300	135
140	39.1	111.4	12,500	43.6	109.5	12,900	47.7	104.7	10,900	140
145	36.3	104.6	11,800	40.7	102.6	12,100	44.6	97.3	10,600	145
150	33.2	97.0	11,100	37.6	94.8	11,400	41.3	89.1	10,400	150
155	29.9	88.4	10,500	34.1	86.0	10,700	37.6	79.5	10,200	155
160	26.2	78.4	9,800	30.3	75.7	10,000	33.3	68.1	10,000	160
161	25.3	76.2	9,700	29.0	73.1	9,900	31.8	65.2	9,900	161
165				25.7	63.0	9,400	28.0	53.5	9,500	165
167							25.3	45.9	9,200	167

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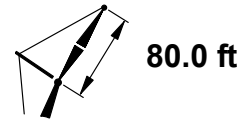
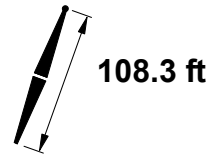
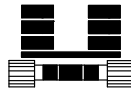
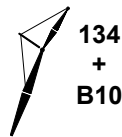
ASME B30.5

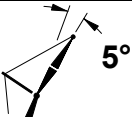
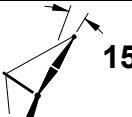
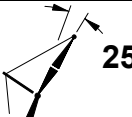
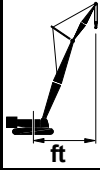
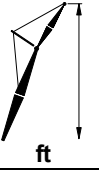
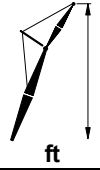
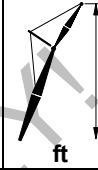


	5°			15°			25°			
 ft	 o	 ft	 lb	 o	 ft	 lb	 o	 ft	 lb	 ft
44	78.8	183.3	23,200							44
46	78.2	182.8	23,000							46
48	77.5	182.4	22,900							48
50	76.9	181.9	22,700							50
55	75.2	180.5	22,200							55
58	73.8	179.6	21,900	78.8	178.3	21,700				58
60	73.6	179.0	21,700	78.1	177.7	21,600				60
65	71.9	177.3	21,200	76.5	176.0	21,000				65
70	70.2	175.4	20,700	74.8	174.2	20,500				70
72	69.2	174.6	20,600	73.6	173.3	20,300	78.8	170.1	18,600	72
75	68.5	173.4	20,300	73.0	172.1	19,900	77.7	168.8	18,300	75
80	66.8	171.2	19,800	71.3	169.9	19,500	76.0	166.6	17,500	80
85	65.0	168.8	19,400	69.5	167.5	19,000	74.1	164.1	16,700	85
90	63.2	166.3	19,000	67.7	164.9	18,500	72.3	161.5	16,100	90
95	61.4	163.5	18,600	65.9	162.1	18,100	70.4	158.6	15,400	95
100	59.6	160.5	18,200	64.0	159.1	17,600	68.5	155.5	14,800	100
105	57.7	157.3	17,900	62.1	155.9	17,200	66.6	152.2	14,300	105
110	55.8	153.9	17,500	60.2	152.4	16,800	64.6	148.6	13,700	110
115	53.8	150.1	16,800	58.2	148.6	16,500	62.5	144.8	13,200	115
120	51.8	146.2	15,700	56.1	144.6	16,100	60.4	140.6	12,800	120
125	49.7	141.9	14,700	54.0	140.3	15,200	58.2	136.1	12,400	125
130	47.5	137.2	13,800	51.8	135.6	14,200	56.0	131.3	12,000	130
135	45.3	132.2	12,900	49.5	130.5	13,300	53.6	126.0	11,700	135
140	42.9	126.8	12,100	47.2	125.0	12,500	51.2	120.3	11,300	140
145	40.5	120.9	11,400	44.7	119.1	11,700	48.6	114.1	11,000	145
150	37.9	114.5	10,700	42.0	112.5	11,000	45.8	107.2	10,800	150
155	35.1	107.4	10,000	39.2	105.3	10,300	42.8	99.6	10,500	155
160	32.2	99.5	9,400	36.2	97.2	9,700	39.6	90.9	9,900	160
165	28.9	90.6	8,900	32.9	87.9	9,100	35.9	80.9	9,300	165
170	25.3	80.2	8,300	29.1	77.2	8,500	31.7	69.0	8,700	170
174				25.5	66.9	8,100	27.0	56.6	8,200	174
175							26.5	53.5	8,100	175

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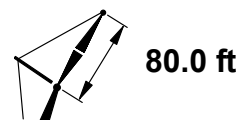
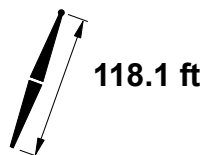
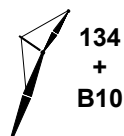
ASME B30.5



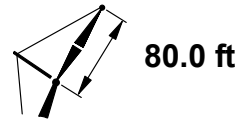
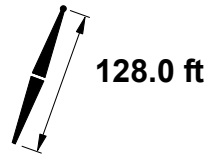
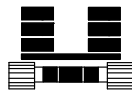
	 5°			 15°			 25°			
 ft	 o	 ft	 lb	 o	 ft	 lb	 o	 ft	 lb	 ft
46	78.8	192.9	22,900							46
48	78.2	192.5	22,800							48
50	77.6	192.0	22,600							50
55	76.0	190.7	22,100							55
60	74.5	189.3	21,700	78.8	188.0	21,700				60
65	72.9	187.7	21,200	77.2	186.4	21,100				65
70	71.3	185.9	20,700	75.6	184.6	20,700				70
74	69.4	184.4	20,400	73.4	183.1	20,300	78.8	179.7	18,600	74
75	69.7	184.0	20,300	74.0	182.7	20,200	78.4	179.3	18,500	75
80	68.1	182.0	19,900	72.3	180.6	19,800	76.8	177.2	17,800	80
85	66.4	179.8	19,400	70.7	178.4	19,200	75.1	174.9	17,100	85
90	64.7	177.3	19,000	69.0	176.0	18,800	73.3	172.4	16,400	90
95	63.0	174.8	18,600	67.3	173.3	18,400	71.6	169.7	15,800	95
100	61.3	172.0	18,300	65.5	170.5	18,000	69.8	166.9	15,200	100
105	59.6	169.0	17,900	63.8	167.5	17,500	68.0	163.8	14,700	105
110	57.8	165.8	17,600	62.0	164.3	17,200	66.2	160.5	14,100	110
115	56.0	162.4	16,500	60.1	160.8	16,800	64.3	156.9	13,700	115
120	54.1	158.7	15,400	58.2	157.1	16,000	62.3	153.1	13,200	120
125	52.2	154.8	14,400	56.3	153.2	15,000	60.4	149.0	12,800	125
130	50.2	150.6	13,500	54.3	148.9	14,000	58.3	144.7	12,400	130
135	48.2	146.1	12,600	52.3	144.4	13,100	56.2	139.9	12,100	135
140	46.1	141.2	11,800	50.1	139.4	12,300	54.0	134.9	11,700	140
145	43.9	136.0	11,100	47.9	134.1	11,500	51.7	129.4	11,400	145
150	41.6	130.3	10,400	45.6	128.4	10,800	49.3	123.4	11,100	150
155	39.3	124.2	9,700	43.2	122.2	10,100	46.8	116.9	10,400	155
160	36.7	117.5	9,100	40.7	115.3	9,500	44.1	109.7	9,800	160
165	34.1	110.1	8,600	37.9	107.8	8,900	41.2	101.7	9,100	165
170	31.2	101.9	8,000	34.9	99.4	8,300	38.0	92.7	8,500	170
175	28.0	92.6	7,500	31.7	89.8	7,800	34.4	82.3	7,900	175
179	25.2	84.2	7,200	27.8	80.9	7,400	30.8	72.3	7,500	179
180				28.0	78.6	7,200	30.3	69.8	7,400	180
183				25.4	70.8	7,000	27.0	60.4	7,000	183
184							26.2	57.3	6,900	184

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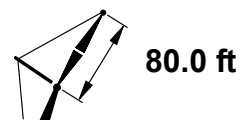
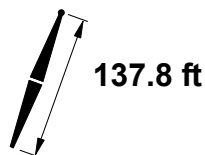
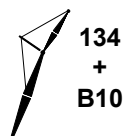
	5°			15°			25°			
	ft	o	ft	lb	ft	lb	ft	lb	ft	
48	78.8	202.6	22,600							48
50	78.2	202.1	22,500							50
55	76.7	200.9	22,100							55
60	75.3	199.5	21,600							60
62	74.2	198.9	21,400	78.8	197.6	21,600				62
65	73.8	198.0	21,200	77.9	196.7	21,300				65
70	72.3	196.4	20,700	76.3	195.0	20,800				70
75	70.7	194.6	20,300	74.8	193.2	20,400				75
76	69.8	194.2	20,200	73.8	192.8	20,300	78.7	189.3	18,600	76
80	69.2	192.6	19,900	73.3	191.3	19,900	77.5	187.7	18,200	80
85	67.6	190.5	19,500	71.7	189.1	19,500	75.9	185.5	17,400	85
90	66.1	188.3	19,100	70.1	186.9	19,100	74.3	183.2	16,700	90
95	64.5	185.8	18,700	68.5	184.4	18,600	72.6	180.7	16,100	95
100	62.9	183.2	18,300	66.9	181.8	18,200	71.0	178.0	15,600	100
105	61.2	180.5	17,900	65.2	179.0	17,900	69.3	175.2	15,000	105
110	59.6	177.5	17,300	63.6	176.0	17,500	67.6	172.1	14,500	110
115	57.9	174.3	16,100	61.8	172.7	16,800	65.8	168.8	14,000	115
120	56.1	170.9	15,000	60.1	169.3	15,700	64.0	165.3	13,600	120
125	54.4	167.3	14,000	58.3	165.6	14,600	62.2	161.5	13,200	125
130	52.6	163.4	13,000	56.5	161.7	13,600	60.3	157.5	12,800	130
135	50.7	159.3	12,200	54.6	157.6	12,700	58.4	153.2	12,400	135
140	48.8	154.8	11,400	52.7	153.1	11,900	56.4	148.6	12,100	140
145	46.8	150.1	10,700	50.7	148.3	11,100	54.3	143.6	11,600	145
150	44.8	145.0	10,000	48.6	143.2	10,400	52.2	138.3	10,900	150
155	42.7	139.6	9,300	46.5	137.6	9,700	50.0	132.6	10,100	155
160	40.5	133.7	8,700	44.2	131.7	9,100	47.6	126.3	9,500	160
165	38.1	127.3	8,200	41.9	125.2	8,500	45.2	119.5	8,800	165
170	35.7	120.4	7,600	39.4	118.1	8,000	42.5	112.1	8,200	170
175	33.1	112.7	7,100	36.7	110.3	7,400	39.7	103.8	7,700	175
180	30.3	104.2	6,700	33.8	101.5	6,900	36.6	94.4	7,100	180
185	27.2	94.6	6,200	30.6	91.6	6,400	33.1	83.6	6,600	185
188	25.1	88.1	6,000	27.6	84.7	6,200	30.0	75.8	6,300	188
190				27.0	80.0	6,000	29.0	70.5	6,100	190
192				25.3	74.7	5,800	26.7	64.2	5,900	192
193							26.1	61.0	5,800	193

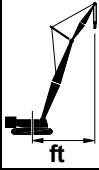
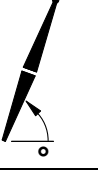
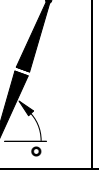
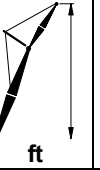


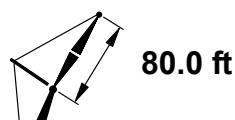
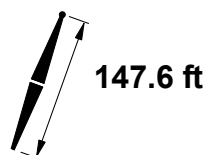
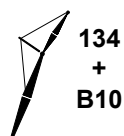
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
50	78.8	212.2	22,400							50
55	77.4	211.0	22,000							55
60	76.0	209.7	21,600							60
64	74.2	208.6	21,200	78.7	207.2	21,500				64
65	74.5	208.3	21,100	78.5	206.9	21,400				65
70	73.1	206.8	20,700	77.0	205.4	21,000				70
75	71.7	205.1	20,300	75.6	203.7	20,500				75
78	70.4	204.0	20,100	74.4	202.5	20,300	78.7	198.9	18,500	78
80	70.2	203.2	19,900	74.1	201.8	20,100	78.1	198.2	18,400	80
85	68.8	201.2	19,500	72.6	199.8	19,700	76.6	196.1	17,800	85
90	67.3	199.1	19,100	71.1	197.6	19,300	75.1	193.9	17,100	90
95	65.8	196.8	18,700	69.6	195.3	18,900	73.5	191.6	16,500	95
100	64.3	194.3	18,300	68.1	192.9	18,500	72.0	189.0	15,900	100
105	62.7	191.7	18,200	66.5	190.2	18,100	70.4	186.3	15,400	105
110	61.1	188.9	17,000	65.0	187.4	17,800	68.8	183.5	14,900	110
115	59.6	185.9	15,700	63.4	184.4	16,500	67.2	180.4	14,400	115
120	57.9	182.8	14,600	61.7	181.2	15,400	65.5	177.1	14,000	120
125	56.3	179.4	13,600	60.1	177.8	14,300	63.8	173.6	13,500	125
130	54.6	175.8	12,700	58.4	174.2	13,300	62.0	169.9	13,200	130
135	52.9	172.0	11,800	56.6	170.3	12,400	60.3	165.9	12,800	135
140	51.1	167.9	11,000	54.9	166.2	11,600	58.4	161.7	12,200	140
145	49.3	163.6	10,300	53.0	161.8	10,800	56.6	157.2	11,300	145
150	47.5	159.0	9,600	51.2	157.1	10,100	54.6	152.4	10,600	150
155	45.6	154.0	9,000	49.2	152.1	9,400	52.6	147.2	9,900	155
160	43.6	148.7	8,400	47.2	146.8	8,800	50.5	141.7	9,200	160
165	41.5	143.1	7,800	45.1	141.0	8,200	48.4	135.7	8,600	165
170	39.4	137.0	7,300	42.9	134.8	7,600	46.1	129.2	8,000	170
175	37.1	130.3	6,800	40.6	128.1	7,100	43.7	122.1	7,400	175
180	34.7	123.1	6,300	38.2	120.7	6,600	41.1	114.4	6,900	180
185	32.2	115.2	5,900	35.6	112.6	6,100	38.3	105.8	6,300	185
190	29.4	106.4	5,400	32.7	103.6	5,700	35.3	96.0	5,900	190
195	26.4	96.5	5,000	29.6	93.3	5,200	31.8	84.8	5,400	195
197	25.1	92.1	4,900	27.8	88.5	5,100	29.4	79.4	5,200	197
200				26.0	81.4	4,800	27.8	71.2	4,900	200
201				25.3	78.7	4,700	26.0	68.0	4,800	201
202							25.9	64.8	4,700	202

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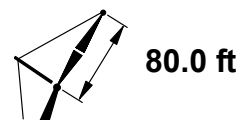
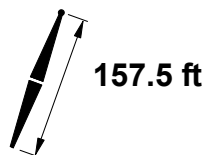
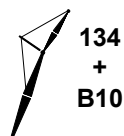
	5°			15°			25°			
										
	ft	o	ft	lb	ft	o	ft	lb	ft	ft
52	78.7	221.8	22,100							52
55	77.9	221.2	21,900							55
60	76.6	219.9	21,500							60
65	75.3	218.6	21,100	79.0	217.2	21,300				65
70	73.9	217.1	20,700	77.6	215.7	21,000				70
75	72.5	215.5	20,200	76.2	214.0	20,600				75
79	71.2	214.1	19,900	74.4	212.6	20,300	79.0	208.9	18,500	79
80	71.1	213.7	19,900	74.9	212.3	20,200	78.7	208.6	18,500	80
85	69.8	211.8	19,500	73.5	210.4	19,800	77.3	206.6	18,100	85
90	68.4	209.8	19,100	72.0	208.3	19,500	75.8	204.6	17,400	90
95	66.9	207.6	18,700	70.6	206.1	19,100	74.4	202.3	16,800	95
100	65.5	205.3	18,400	69.2	203.8	18,700	72.9	199.9	16,200	100
105	64.0	202.8	17,900	67.7	201.3	18,400	71.4	197.4	15,700	105
110	62.6	200.2	16,600	66.2	198.7	17,500	69.9	194.7	15,200	110
115	61.1	197.4	15,300	64.7	195.8	16,200	68.3	191.8	14,800	115
120	59.6	194.4	14,200	63.2	192.8	15,000	66.8	188.7	14,300	120
125	58.0	191.3	13,200	61.6	189.6	14,000	65.2	185.5	13,900	125
130	56.4	187.9	12,300	60.0	186.2	13,000	63.6	182.0	13,500	130
135	54.8	184.3	11,400	58.4	182.7	12,100	61.9	178.3	12,800	135
140	53.2	180.6	10,600	56.8	178.8	11,200	60.2	174.4	11,900	140
145	51.5	176.6	9,900	55.1	174.8	10,500	58.5	170.2	11,100	145
150	49.8	172.3	9,200	53.4	170.5	9,700	56.7	165.8	10,300	150
155	48.1	167.8	8,600	51.6	165.9	9,100	54.9	161.1	9,600	155
160	46.3	163.0	8,000	49.7	161.0	8,400	53.0	156.1	8,900	160
165	44.4	157.8	7,400	47.9	155.8	7,800	51.0	150.7	8,300	165
170	42.5	152.3	6,900	45.9	150.3	7,300	49.0	144.9	7,700	170
175	40.5	146.4	6,400	43.9	144.3	6,700	46.9	138.7	7,100	175
180	38.4	140.1	5,900	41.7	137.8	6,200	44.6	132.0	6,600	180
185	36.1	133.3	5,500	39.5	130.9	5,800	42.3	124.6	6,100	185
190	33.8	125.8	5,000	37.1	123.3	5,300	39.8	116.6	5,600	190
195	31.3	117.6	4,600	34.5	114.9	4,900	37.0	107.7	5,100	195
200	28.6	108.6	4,300	31.8	105.6	4,500	34.0	97.6	4,600	200
205	25.6	98.3	3,900	28.7	95.0	4,100	30.7	86.0	4,200	205
210				25.2	82.6	3,700	26.7	71.9	3,800	210
211							25.8	68.6	3,700	211

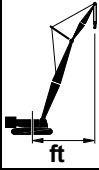
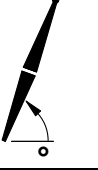
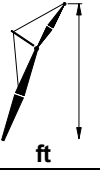
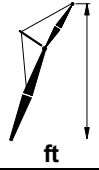
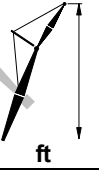


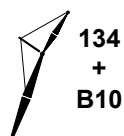
	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
53	79.0	231.7	21,800							53
55	78.5	231.3	21,700							55
60	77.2	230.1	21,400							60
65	75.9	228.8	21,000							65
67	74.6	228.2	20,800	79.0	226.8	21,200				67
70	74.6	227.4	20,600	78.2	225.9	20,900				70
75	73.3	225.8	20,200	76.9	224.4	20,600				75
80	72.0	224.2	19,800	75.5	222.7	20,200				80
81	70.8	223.8	19,700	74.8	222.3	20,200	78.9	218.6	18,500	81
85	70.7	222.4	19,500	74.2	220.9	19,900	77.9	217.1	18,300	85
90	69.3	220.4	19,100	72.9	218.9	19,600	76.5	215.1	17,700	90
95	68.0	218.4	18,700	71.5	216.9	19,200	75.1	213.0	17,100	95
100	66.6	216.2	18,300	70.1	214.6	18,900	73.7	210.7	16,500	100
105	65.2	213.8	17,600	68.7	212.3	18,500	72.3	208.3	16,000	105
110	63.8	211.3	16,300	67.3	209.8	17,200	70.9	205.8	15,500	110
115	62.4	208.7	15,000	65.9	207.1	15,900	69.4	203.0	15,000	115
120	61.0	205.9	13,900	64.5	204.3	14,800	67.9	200.1	14,600	120
125	59.6	202.9	12,900	63.0	201.3	13,700	66.4	197.1	14,200	125
130	58.1	199.7	12,000	61.5	198.1	12,700	64.9	193.8	13,500	130
135	56.6	196.4	11,100	60.0	194.7	11,800	63.4	190.4	12,500	135
140	55.1	192.9	10,300	58.5	191.1	11,000	61.8	186.7	11,600	140
145	53.5	189.1	9,600	56.9	187.4	10,200	60.2	182.8	10,800	145
150	51.9	185.2	8,900	55.3	183.4	9,500	58.5	178.7	10,100	150
155	50.3	181.0	8,200	53.6	179.1	8,800	56.8	174.4	9,300	155
160	48.6	176.5	7,600	52.0	174.7	8,200	55.1	169.8	8,700	160
165	46.9	171.8	7,100	50.2	169.9	7,600	53.3	164.9	8,000	165
170	45.1	166.8	6,500	48.4	164.8	7,000	51.5	159.6	7,400	170
175	43.3	161.5	6,000	46.6	159.4	6,500	49.6	154.0	6,900	175
180	41.4	155.8	5,600	44.7	153.6	6,000	47.6	148.0	6,300	180
185	39.5	149.7	5,100	42.7	147.5	5,500	45.5	141.6	5,800	185
190	37.4	143.2	4,700	40.6	140.8	5,100	43.3	134.6	5,400	190
195	35.2	136.1	4,300	38.4	133.6	4,600	41.0	127.1	4,900	195
200	33.0	128.4	3,900	36.1	125.8	4,200	38.5	118.7	4,400	200
205	30.5	120.0	3,500	33.6	117.1	3,800	35.9	109.5	4,000	205
210	27.9	110.6	3,100	30.8	107.5	3,300	32.9	99.1	3,500	210
215							29.6	87.1	3,000	215

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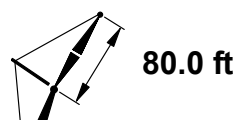
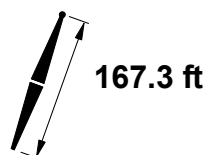
ASME B30.5



	5°			15°			25°			
										
	ft	o	ft	lb	ft	lb	ft	lb	ft	ft
55		79.0	241.3	21,500						55
60		77.7	240.2	21,200						60
65		76.5	239.0	20,900						65
69		75.2	237.9	20,600	78.9	236.4	20,900			69
70		75.3	237.6	20,500	78.7	236.1	20,900			70
75		74.0	236.1	20,100	77.4	234.6	20,600			75
80		72.8	234.6	19,700	76.2	233.0	20,200			80
83		71.4	233.5	19,500	74.8	232.0	20,000	78.9	228.2	18,400
85		71.5	232.8	19,400	74.9	231.3	19,900	78.4	227.5	18,300
90		70.2	231.0	19,000	73.6	229.5	19,600	77.1	225.6	18,000
95		68.9	229.0	18,700	72.3	227.5	19,300	75.8	223.6	17,400
100		67.6	226.9	18,300	71.0	225.4	19,000	74.4	221.4	16,800
105		66.3	224.7	17,200	69.7	223.1	18,300	73.1	219.1	16,300
110		65.0	222.3	15,900	68.4	220.8	16,900	71.7	216.7	15,800
115		63.7	219.8	14,600	67.0	218.2	15,600	70.4	214.1	15,300
120		62.3	217.2	13,500	65.6	215.5	14,400	69.0	211.4	14,900
125		60.9	214.4	12,500	64.3	212.7	13,400	67.6	208.5	14,200
130		59.6	211.4	11,600	62.9	209.7	12,400	66.1	205.4	13,200
135		58.1	208.2	10,700	61.4	206.5	11,500	64.7	202.2	12,200
140		56.7	204.9	9,900	60.0	203.2	10,600	63.2	198.7	11,400
145		55.2	201.4	9,200	58.5	199.6	9,800	61.7	195.1	10,500
150		53.8	197.7	8,500	57.0	195.9	9,100	60.2	191.3	9,800
155		52.2	193.8	7,800	55.5	192.0	8,400	58.6	187.3	9,000
160		50.7	189.7	7,200	53.9	187.8	7,800	57.0	183.0	8,400
165		49.1	185.3	6,700	52.3	183.4	7,200	55.3	178.4	7,700
170		47.5	180.7	6,100	50.7	178.7	6,600	53.6	173.6	7,100
175		45.8	175.8	5,600	49.0	173.8	6,100	51.9	168.5	6,600
180		44.1	170.6	5,200	47.2	168.5	5,600	50.1	163.1	6,000
185		42.3	165.1	4,700	45.4	162.9	5,100	48.2	157.3	5,500
190		40.4	159.2	4,200	43.5	156.9	4,700	46.3	151.1	5,000
195		38.5	152.9	3,800	41.6	150.5	4,200	44.2	144.4	4,600
200		36.5	146.1	3,300	39.6	143.7	3,700	42.1	137.2	4,100
205					37.4	136.2	3,300	39.8	129.4	3,600
210								37.4	120.8	3,100



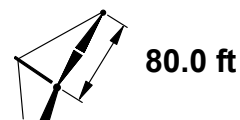
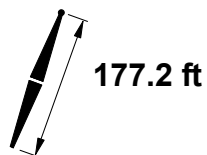
75,200 lb
+
0 lb

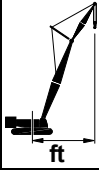
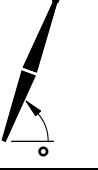
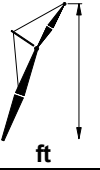
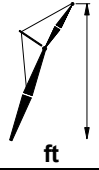
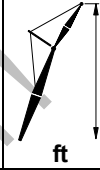


	5°			15°			25°			
ft	o	ft	lb	o	ft	lb	o	ft	lb	ft
57	78.9	251.0	21,200							57
60	78.2	250.3	21,000							60
65	77.0	249.1	20,700							65
70	75.9	247.8	20,400							70
71	74.8	247.5	20,300	78.9	246.0	20,700				71
75	74.7	246.4	20,000	77.9	244.9	20,400				75
80	73.5	244.9	19,700	76.7	243.4	20,100				80
85	72.3	243.3	19,300	75.5	241.7	19,800	78.9	237.8	18,400	85
90	71.0	241.5	19,000	74.3	240.0	19,600	77.6	236.0	18,100	90
95	69.8	239.6	18,600	73.1	238.1	19,200	76.4	234.1	17,600	95
100	68.6	237.6	18,300	71.8	236.1	19,000	75.1	232.0	17,100	100
105	67.3	235.5	16,900	70.6	233.9	18,000	73.8	229.9	16,600	105
110	66.1	233.2	15,500	69.3	231.6	16,600	72.6	227.5	16,100	110
115	64.8	230.9	14,300	68.0	229.2	15,300	71.2	225.1	15,600	115
120	63.5	228.3	13,200	66.7	226.7	14,100	69.9	222.5	15,100	120
125	62.2	225.7	12,100	65.4	224.0	13,100	68.6	219.7	14,000	125
130	60.9	222.8	11,200	64.1	221.2	12,100	67.2	216.8	12,900	130
135	59.5	219.9	10,300	62.7	218.2	11,100	65.9	213.8	12,000	135
140	58.2	216.7	9,500	61.4	215.0	10,300	64.5	210.6	11,100	140
145	56.8	213.4	8,800	60.0	211.7	9,500	63.0	207.1	10,300	145
150	55.4	209.9	8,100	58.6	208.1	8,800	61.6	203.5	9,500	150
155	54.0	206.3	7,500	57.1	204.4	8,100	60.1	199.8	8,800	155
160	52.5	202.4	6,900	55.7	200.5	7,500	58.6	195.8	8,100	160
165	51.1	198.3	6,300	54.2	196.4	6,900	57.1	191.5	7,400	165
170	49.5	194.0	5,800	52.6	192.1	6,300	55.5	187.1	6,800	170
175	48.0	189.5	5,300	51.1	187.5	5,800	53.9	182.4	6,300	175
180	46.4	184.7	4,700	49.4	182.7	5,300	52.2	177.4	5,700	180
185	44.8	179.6	4,200	47.8	177.5	4,800	50.5	172.1	5,200	185
190	43.1	174.3	3,700	46.1	172.1	4,300	48.8	166.5	4,800	190
195	41.3	168.6	3,200	44.3	166.3	3,800	46.9	160.5	4,200	195
200				42.5	160.1	3,300	45.0	154.0	3,700	200
205							43.0	147.2	3,200	205

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ASME B30.5



	5°			15°			25°			
 ft	 o	 ft	 lb	 o	 ft	 lb	 o	 ft	 lb	 ft
59	78.9	260.6	20,800							59
60	78.7	260.4	20,800							60
65	77.5	259.2	20,500							65
70	76.4	258.0	20,200							70
73	75.4	257.2	20,000	78.9	255.7	20,400				73
75	75.3	256.6	19,900	78.4	255.1	20,300				75
80	74.1	255.2	19,600	77.3	253.6	20,000				80
85	73.0	253.6	19,200	76.1	252.1	19,700				85
87	71.6	252.9	19,100	75.2	251.4	19,600	78.9	247.4	18,400	87
90	71.8	251.9	18,900	74.9	250.4	19,500	78.2	246.4	18,200	90
95	70.6	250.1	18,600	73.7	248.6	19,200	77.0	244.5	17,900	95
100	69.4	248.2	18,000	72.5	246.6	18,900	75.7	242.6	17,300	100
105	68.2	246.2	16,500	71.3	244.6	17,700	74.5	240.5	16,800	105
110	67.0	244.1	15,100	70.1	242.4	16,300	73.3	238.3	16,400	110
115	65.8	241.8	13,900	68.9	240.1	15,000	72.0	236.0	15,900	115
120	64.6	239.4	12,800	67.7	237.7	13,800	70.8	233.5	14,900	120
125	63.4	236.8	11,700	66.4	235.1	12,700	69.5	230.9	13,700	125
130	62.1	234.1	10,800	65.2	232.4	11,700	68.2	228.1	12,700	130
135	60.8	231.3	9,900	63.9	229.6	10,800	66.9	225.2	11,700	135
140	59.5	228.3	9,100	62.6	226.6	10,000	65.6	222.2	10,800	140
145	58.2	225.2	8,400	61.3	223.4	9,200	64.3	218.9	10,000	145
150	56.9	221.9	7,700	59.9	220.1	8,400	62.9	215.5	9,200	150
155	55.6	218.5	7,100	58.6	216.6	7,800	61.5	212.0	8,500	155
160	54.2	214.8	6,500	57.2	213.0	7,100	60.1	208.2	7,800	160
165	52.8	211.0	5,900	55.8	209.1	6,500	58.7	204.3	7,100	165
170	51.4	207.0	5,300	54.4	205.0	6,000	57.2	200.1	6,500	170
175	50.0	202.7	4,700	52.9	200.8	5,400	55.7	195.7	6,000	175
180	48.5	198.3	4,200	51.4	196.3	4,800	54.2	191.1	5,400	180
185	47.0	193.6	3,600	49.9	191.5	4,300	52.6	186.2	4,900	185
190	45.4	188.6	3,100	48.3	186.5	3,700	51.0	181.0	4,300	190
195				46.7	181.2	3,200	49.3	175.5	3,800	195
200							47.6	169.7	3,200	200