

Liftcrane Boom Capacities With Luffing Jib Attached

MLC200 SERIES 1

Boom No. B10:76A

Luffing Jib No. 135

114,600 lb Crane Counterweight

0 lb Carbody Counterweight

360 Degree Rating



LIFTING CAPACITIES: Lifting capacities for various boom lengths, luffing jib lengths, boom-to-luffing jib angles, and boom operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities must be reduced by applicable deducts.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves is considered part of load. Weight of luffing jib and 3,000 lb suspended beneath luffing jib point sheaves have been included in capacity determination. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. Supporting surface and bearing turntable are to be level within a tolerance of 1/2 in. in 10 ft. During operation, luffing jib must be maintained at proper boom-to-luffing jib angle shown in table. Refer to Boom Rigging **No. 80149429**, Luffing Jib Rigging **No. 80149433**, Wire Rope Specifications chart **No. A037-A**, Counterweight Arrangements chart **No. A004-A**, Luffing Jib Raising Procedure chart **No. A032-A**, and Wind Conditions chart **No. A031-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 and luffing jib must be within angle range shown in capacity chart. Refer to Maximum Allowable Travel Specifications chart **No. A033-A**.



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



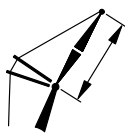
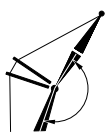
BOOM ANGLE: Boom angle in degrees (°) is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.



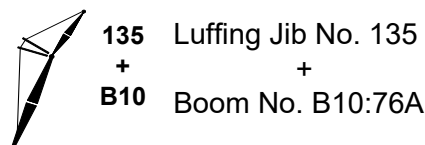
BOOM POINT ELEVATION: Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 27 ft 2 in. crawlers, 48 in. treads, 10 ft 3 in. retractable gantry, 27 ft live mast, 20 part boom hoist reeving, boom support straps, 8 part luffing jib hoist reeving, two 1-1/2 in. luffing jib pendants and backstays.

Consult chart **No. A029-A** for luffing jib capacities.

Luffing Jib Position During Operation	
	
Luffing Jib Length Feet	Boom-to-Luffing Jib Angle Degrees
70	140
80 - 90	150
100 - 120	160
130 - 170	168

Explanation of Symbols



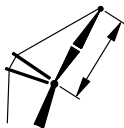
135 Luffing Jib No. 135
+
B10 Boom No. B10:76A



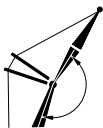
Crane Counterweight
+
Carbody Counterweight



360 Degree Rating



Luffing Jib Length



Boom-to-Luffing Jib Angle



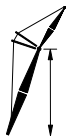
Boom Length



Operating Radius
(see page 1)



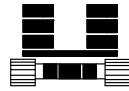
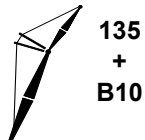
Boom Angle
(see page 1)



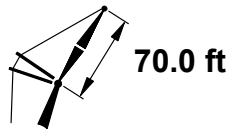
Boom Point Elevation
(see page 1)



Lifting Capacities
(see page 1)



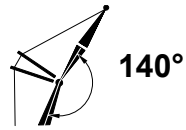
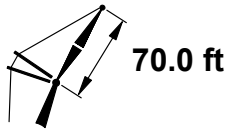
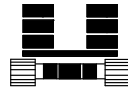
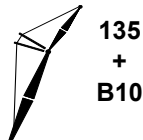
114,600 lb
+
0 lb



65.6 ft			
ft	°	ft	lb
15	83.2	73.1	340,400
16	82.3	72.9	319,400
18	80.5	72.5	283,500
20	78.8	72.1	253,300
25	74.2	70.7	178,300
29	70.5	69.3	134,500

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	300,600
18	81.8	82.6	283,400
20	80.3	82.2	253,300
25	76.3	81.0	179,600
30	72.4	79.4	127,300
32	70.8	78.7	112,800

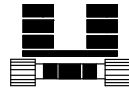
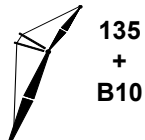
85.3 ft			
ft	°	ft	lb
18	82.8	92.5	283,600
20	81.4	92.2	253,500
25	78.0	91.1	180,500
30	74.5	89.8	128,100
35	70.9	88.1	96,200
36	70.2	87.7	91,300



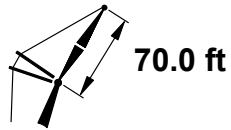
95.1 ft			
ft	°	ft	lb
19	82.9	102.3	267,500
20	82.3	102.2	253,200
25	79.2	101.2	181,300
30	76.1	100.0	128,600
35	73.0	98.5	96,600
39	70.4	97.1	78,800

105.0 ft			
ft	°	ft	lb
20	83.0	112.1	253,400
25	80.3	111.3	181,900
30	77.5	110.2	129,200
35	74.6	108.8	97,100
40	71.8	107.2	75,600
43	70.0	106.1	65,700

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	239,800
25	81.1	121.3	182,400
30	78.6	120.3	129,500
35	76.0	119.1	97,300
40	73.4	117.6	75,700
45	70.7	115.8	60,200
46	70.2	115.5	57,600



114,600 lb
+
0 lb

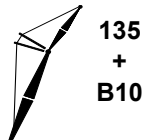


124.7 ft			
ft	°	ft	lb
22	83.2	131.7	227,600
25	81.8	131.3	182,700
30	79.5	130.3	129,700
35	77.1	129.2	97,500
40	74.7	127.9	75,800
45	72.3	126.3	60,300
49	70.4	124.9	50,700

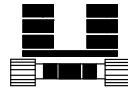
134.5 ft			
ft	°	ft	lb
24	82.8	141.4	196,500
25	82.4	141.2	183,100
30	80.3	140.4	129,900
35	78.1	139.3	97,600
40	75.9	138.1	75,800
45	73.7	136.6	60,200
50	71.4	135.0	48,500
53	70.1	133.9	42,700

144.4 ft			
ft	°	ft	lb
25	82.9	151.2	181,600
30	80.9	150.4	130,000
35	78.9	149.4	97,700
40	76.9	148.3	75,900
45	74.8	146.9	60,300
50	72.7	145.4	48,600
55	70.6	143.6	39,400
56	70.2	143.3	37,800

REFERENCE ONLY



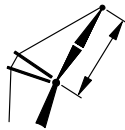
135
+
B10



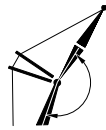
114,600 lb
+
0 lb



360°



80.0 ft

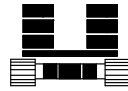
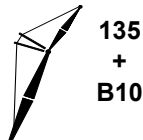


150°

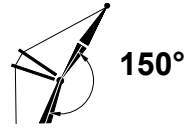
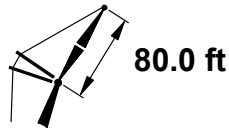
65.6 ft			
ft	°	ft	lb
15	83.2	73.1	340,700
16	82.3	72.9	319,600
18	80.5	72.5	283,300
20	78.8	72.1	252,800
25	74.2	70.7	177,600
30	69.6	68.9	125,100
35	64.8	66.6	93,200

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	300,800
18	81.8	82.6	283,500
20	80.3	82.2	253,000
25	76.3	81.0	179,100
30	72.4	79.4	126,400
35	68.3	77.5	94,300
40	64.1	75.1	72,800

85.3 ft			
ft	°	ft	lb
18	82.8	92.5	283,800
20	81.4	92.2	253,400
25	78.0	91.1	180,300
30	74.5	89.8	127,400
35	70.9	88.1	95,300
40	67.3	86.0	73,700
44	64.3	84.1	60,900



114,600 lb
+
0 lb

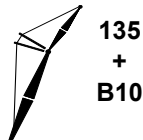


95.1 ft			
ft	°	ft	lb
19	82.9	102.3	267,600
20	82.3	102.2	253,200
25	79.2	101.2	181,200
30	76.1	100.0	128,100
35	73.0	98.5	95,900
40	69.8	96.7	74,200
45	66.5	94.5	58,600
48	64.5	93.1	51,200

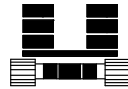
105.0 ft			
ft	°	ft	lb
20	83.0	112.1	253,500
25	80.3	111.3	181,900
30	77.5	110.2	128,800
35	74.6	108.8	96,500
40	71.8	107.2	74,800
45	68.8	105.3	59,200
50	65.9	103.1	47,400
53	64.0	101.6	41,600

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	239,900
25	81.1	121.3	182,600
30	78.6	120.3	129,200
35	76.0	119.1	96,800
40	73.4	117.6	75,000
45	70.7	115.8	59,300
50	68.1	113.9	47,500
55	65.3	111.6	38,300
57	64.2	110.6	35,200

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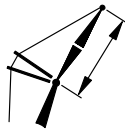
135
+
B10



114,600 lb
+
0 lb



360°



80.0 ft

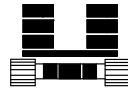
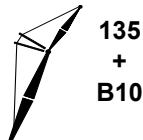


150°

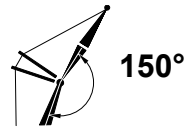
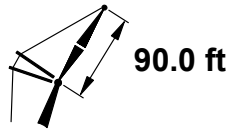
124.7 ft			
ft	°	ft	lb
22	83.2	131.7	227,700
25	81.8	131.3	183,000
30	79.5	130.3	129,600
35	77.1	129.2	97,100
40	74.7	127.9	75,200
45	72.3	126.3	59,500
50	69.9	124.5	47,700
55	67.4	122.4	38,500
60	64.9	120.1	31,100
61	64.4	119.6	29,700

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	196,600
25	82.4	141.2	183,300
30	80.3	140.4	129,800
35	78.1	139.3	97,200
40	75.9	138.1	75,300
45	73.7	136.6	59,500
50	71.4	135.0	47,700
55	69.1	133.1	38,400
60	66.8	131.0	31,000
65	64.5	128.6	24,500

144.4 ft			
ft	°	ft	lb
25	82.9	151.2	181,700
30	80.9	150.4	130,000
35	78.9	149.4	97,400
40	76.9	148.3	75,500
45	74.8	146.9	59,700
50	72.7	145.4	47,800
55	70.6	143.6	38,600
60	68.5	141.7	31,200
65	66.3	139.5	24,500
70	64.1	137.1	18,800



114,600 lb
+
0 lb

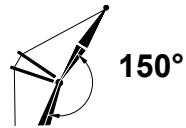
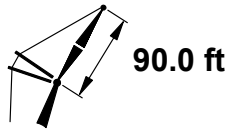
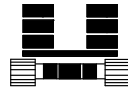
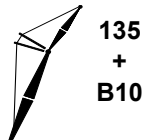


65.6 ft			
ft	°	ft	lb
15	83.2	73.1	337,400
16	82.3	72.9	316,300
18	80.5	72.5	279,300
20	78.8	72.1	249,000
25	74.2	70.7	173,400
30	69.6	68.9	121,600
35	64.8	66.6	90,100

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	297,000
18	81.8	82.6	279,500
20	80.3	82.2	249,300
25	76.3	81.0	175,000
30	72.4	79.4	123,000
35	68.3	77.5	91,400
40	64.1	75.1	70,100

85.3 ft			
ft	°	ft	lb
18	82.8	92.5	279,900
20	81.4	92.2	249,700
25	78.0	91.1	176,300
30	74.5	89.8	124,100
35	70.9	88.1	92,400
40	67.3	86.0	71,100
44	64.3	84.1	58,500

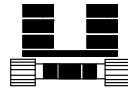
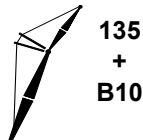
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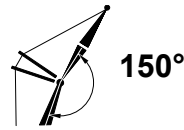
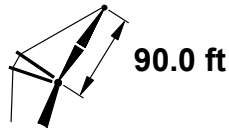
95.1 ft			
ft	°	ft	lb
19	82.9	102.3	263,900
20	82.3	102.2	249,500
25	79.2	101.2	177,300
30	76.1	100.0	124,900
35	73.0	98.5	93,100
40	69.8	96.7	71,700
45	66.5	94.5	56,300
48	64.5	93.1	49,000

105.0 ft			
ft	°	ft	lb
20	83.0	112.1	249,900
25	80.3	111.3	178,100
30	77.5	110.2	125,700
35	74.6	108.8	93,800
40	71.8	107.2	72,300
45	68.8	105.3	56,900
50	65.9	103.1	45,300
53	64.0	101.6	39,700

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	236,500
25	81.1	121.3	178,800
30	78.6	120.3	126,100
35	76.0	119.1	94,100
40	73.4	117.6	72,600
45	70.7	115.8	57,200
50	68.1	113.9	45,500
55	65.3	111.6	36,400
57	64.2	110.6	33,300



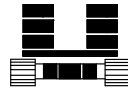
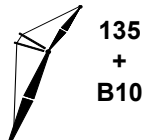
114,600 lb
+
0 lb



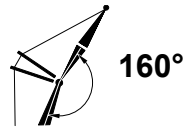
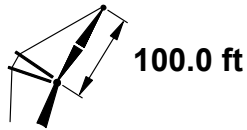
124.7 ft			
ft	°	ft	lb
22	83.2	131.7	224,400
25	81.8	131.3	179,300
30	79.5	130.3	126,500
35	77.1	129.2	94,400
40	74.7	127.9	72,900
45	72.3	126.3	57,400
50	69.9	124.5	45,700
55	67.4	122.4	36,600
60	64.9	120.1	29,300
61	64.4	119.6	28,000

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	192,100
25	82.4	141.2	179,000
30	80.3	140.4	126,800
35	78.1	139.3	94,600
40	75.9	138.1	73,000
45	73.7	136.6	57,400
50	71.4	135.0	45,700
55	69.1	133.1	36,600
60	66.8	131.0	29,100
65	64.5	128.6	22,400

144.4 ft			
ft	°	ft	lb
25	82.9	151.2	177,500
30	80.9	150.4	127,000
35	78.9	149.4	94,800
40	76.9	148.3	73,200
45	74.8	146.9	57,600
50	72.7	145.4	45,900
55	70.6	143.6	36,800
60	68.5	141.7	29,100
65	66.3	139.5	22,400
70	64.1	137.1	16,800



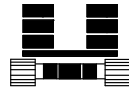
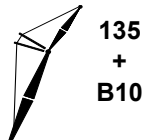
114,600 lb
+
0 lb



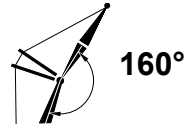
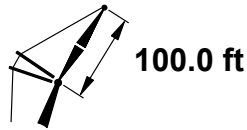
65.6 ft			
ft	°	ft	lb
15	83.2	73.1	340,100
16	82.3	72.9	318,800
18	80.5	72.5	281,800
20	78.8	72.1	250,900
25	74.2	70.7	175,000
30	69.6	68.9	122,100
35	64.8	66.6	89,900
40	59.8	63.7	68,300
42	57.7	62.4	61,500

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	300,000
18	81.8	82.6	282,200
20	80.3	82.2	251,400
25	76.3	81.0	177,000
30	72.4	79.4	123,800
35	68.3	77.5	91,500
40	64.1	75.1	69,800
45	59.7	72.2	54,200
47	57.9	70.9	49,100

85.3 ft			
ft	°	ft	lb
18	82.8	92.5	282,700
20	81.4	92.2	252,000
25	78.0	91.1	178,500
30	74.5	89.8	125,200
35	70.9	88.1	92,800
40	67.3	86.0	71,000
45	63.6	83.6	55,400
50	59.7	80.7	43,600
53	57.3	78.7	37,800



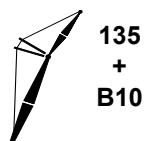
114,600 lb
+
0 lb



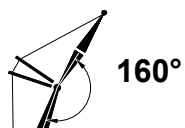
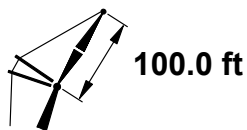
95.1 ft			
ft	°	ft	lb
19	82.9	102.3	266,600
20	82.3	102.2	252,000
25	79.2	101.2	179,700
30	76.1	100.0	126,200
35	73.0	98.5	93,700
40	69.8	96.7	71,800
45	66.5	94.5	56,100
50	63.1	92.0	44,300
55	59.7	89.2	35,000
58	57.5	87.2	30,400

105.0 ft			
ft	°	ft	lb
20	83.0	112.1	252,500
25	80.3	111.3	180,700
30	77.5	110.2	127,100
35	74.6	108.8	94,600
40	71.8	107.2	72,700
45	68.8	105.3	56,900
50	65.9	103.1	45,100
55	62.8	100.5	35,800
60	59.6	97.6	28,400
64	57.0	95.1	23,100

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	238,900
25	81.1	121.3	181,500
30	78.6	120.3	127,700
35	76.0	119.1	95,000
40	73.4	117.6	73,100
45	70.7	115.8	57,300
50	68.1	113.9	45,400
55	65.3	111.6	36,100
60	62.5	109.0	28,600
65	59.6	106.1	21,800
69	57.3	103.6	17,100



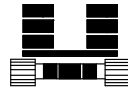
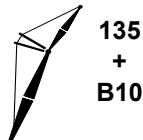
114,600 lb
+
0 lb



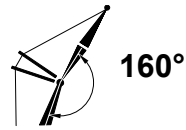
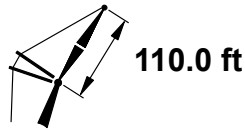
124.7 ft			
ft	°	ft	lb
22	83.2	131.7	226,700
25	81.8	131.3	182,100
30	79.5	130.3	128,200
35	77.1	129.2	95,500
40	74.7	127.9	73,400
45	72.3	126.3	57,600
50	69.9	124.5	45,700
55	67.4	122.4	36,400
60	64.9	120.1	28,800
65	62.3	117.5	21,900
70	59.6	114.6	16,100
74	57.4	112.0	12,100

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	195,300
25	82.4	141.2	181,800
30	80.3	140.4	128,600
35	78.1	139.3	95,700
40	75.9	138.1	73,600
45	73.7	136.6	57,800
50	71.4	135.0	45,800
55	69.1	133.1	36,500
60	66.8	131.0	28,600
65	64.5	128.6	21,700
70	62.1	126.0	15,900
75	59.6	123.1	10,900
80	57.1	119.9	6,600

144.4 ft			
ft	°	ft	lb
25	82.9	151.2	180,400
30	80.9	150.4	128,900
35	78.9	149.4	96,000
40	76.9	148.3	73,900
45	74.8	146.9	58,100
50	72.7	145.4	46,100
55	70.6	143.6	36,700
60	68.5	141.7	28,700
65	66.3	139.5	21,800
70	64.1	137.1	16,100
75	61.9	134.5	11,100
80	59.6	131.6	6,900



114,600 lb
+
0 lb

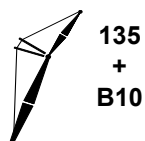


65.6 ft			
ft	°	ft	lb
15	83.2	73.1	337,800
16	82.3	72.9	316,600
18	80.5	72.5	279,000
20	78.8	72.1	248,200
25	74.2	70.7	171,900
30	69.6	68.9	119,500
35	64.8	66.6	87,600
40	59.8	63.7	66,200
42	57.7	62.4	59,500

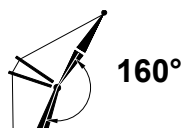
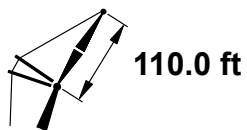
75.5 ft			
ft	°	ft	lb
17	82.6	82.7	297,200
18	81.8	82.6	279,500
20	80.3	82.2	248,800
25	76.3	81.0	174,000
30	72.4	79.4	121,300
35	68.3	77.5	89,300
40	64.1	75.1	67,800
45	59.7	72.2	52,400
47	57.9	70.9	47,300

85.3 ft			
ft	°	ft	lb
18	82.8	92.5	280,100
20	81.4	92.2	249,500
25	78.0	91.1	175,700
30	74.5	89.8	122,900
35	70.9	88.1	90,800
40	67.3	86.0	69,200
45	63.6	83.6	53,700
50	59.7	80.7	42,000
53	57.3	78.7	36,300

REFERENCE



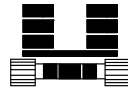
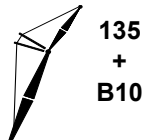
114,600 lb
+
0 lb



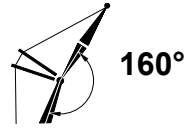
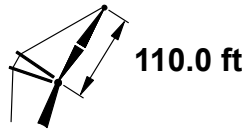
ft	°	ft	lb
19	82.9	102.3	264,100
20	82.3	102.2	249,600
25	79.2	101.2	176,900
30	76.1	100.0	123,900
35	73.0	98.5	91,700
40	69.8	96.7	70,100
45	66.5	94.5	54,500
50	63.1	92.0	42,800
55	59.7	89.2	33,600
58	57.5	87.2	29,000

ft	°	ft	lb
20	83.0	112.1	250,100
25	80.3	111.3	178,000
30	77.5	110.2	124,900
35	74.6	108.8	92,600
40	71.8	107.2	70,900
45	68.8	105.3	55,400
50	65.9	103.1	43,600
55	62.8	100.5	34,400
60	59.6	97.6	27,100
64	57.0	95.1	21,500

ft	°	ft	lb
21	83.1	121.9	236,600
25	81.1	121.3	178,900
30	78.6	120.3	125,600
35	76.0	119.1	93,200
40	73.4	117.6	71,400
45	70.7	115.8	55,800
50	68.1	113.9	44,000
55	65.3	111.6	34,800
60	62.5	109.0	27,100
65	59.6	106.1	20,300
69	57.3	103.6	15,600



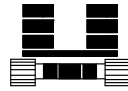
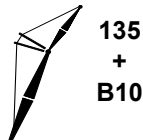
114,600 lb
+
0 lb



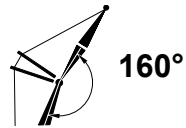
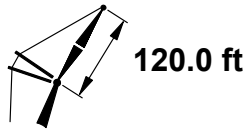
124.7 ft			
ft	°	ft	lb
22	83.2	131.7	224,500
25	81.8	131.3	179,500
30	79.5	130.3	126,100
35	77.1	129.2	93,700
40	74.7	127.9	71,800
45	72.3	126.3	56,200
50	69.9	124.5	44,300
55	67.4	122.4	35,100
60	64.9	120.1	27,300
65	62.3	117.5	20,400
70	59.6	114.6	14,700
74	57.4	112.0	10,700

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	192,100
25	82.4	141.2	178,700
30	80.3	140.4	126,600
35	78.1	139.3	94,000
40	75.9	138.1	72,100
45	73.7	136.6	56,300
50	71.4	135.0	44,500
55	69.1	133.1	35,200
60	66.8	131.0	27,100
65	64.5	128.6	20,300
70	62.1	126.0	14,500
75	59.6	123.1	9,600
80	57.1	119.9	5,400

144.4 ft			
ft	°	ft	lb
25	82.9	151.2	177,400
30	80.9	150.4	126,900
35	78.9	149.4	94,300
40	76.9	148.3	72,400
45	74.8	146.9	56,700
50	72.7	145.4	44,800
55	70.6	143.6	35,400
60	68.5	141.7	27,200
65	66.3	139.5	20,500
70	64.1	137.1	14,700
75	61.9	134.5	9,900
80	59.6	131.6	5,600



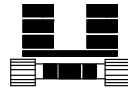
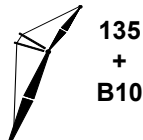
114,600 lb
+
0 lb



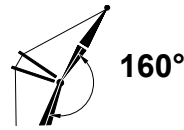
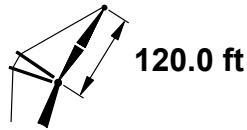
65.6 ft			
ft	°	ft	lb
15	83.2	73.1	334,200
16	82.3	72.9	312,200
18	80.5	72.5	274,700
20	78.8	72.1	244,100
25	74.2	70.7	167,300
30	69.6	68.9	115,500
35	64.8	66.6	84,000
40	59.8	63.7	62,900
42	57.7	62.4	56,200

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	293,000
18	81.8	82.6	275,400
20	80.3	82.2	244,900
25	76.3	81.0	169,600
30	72.4	79.4	117,600
35	68.3	77.5	86,000
40	64.1	75.1	64,700
45	59.7	72.2	49,400
47	57.9	70.9	44,400

85.3 ft			
ft	°	ft	lb
18	82.8	92.5	276,100
20	81.4	92.2	245,600
25	78.0	91.1	171,500
30	74.5	89.8	119,300
35	70.9	88.1	87,500
40	67.3	86.0	66,200
45	63.6	83.6	50,900
50	59.7	80.7	39,300
53	57.3	78.7	33,700



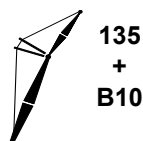
114,600 lb
+
0 lb



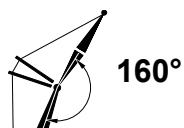
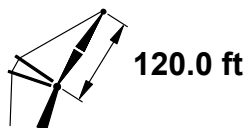
95.1 ft			
ft	°	ft	lb
19	82.9	102.3	260,300
20	82.3	102.2	245,800
25	79.2	101.2	172,900
30	76.1	100.0	120,500
35	73.0	98.5	88,600
40	69.8	96.7	67,200
45	66.5	94.5	51,800
50	63.1	92.0	40,200
55	59.7	89.2	31,200
58	57.5	87.2	26,300

105.0 ft			
ft	°	ft	lb
20	83.0	112.1	246,400
25	80.3	111.3	174,000
30	77.5	110.2	121,500
35	74.6	108.8	89,600
40	71.8	107.2	68,200
45	68.8	105.3	52,700
50	65.9	103.1	41,100
55	62.8	100.5	32,100
60	59.6	97.6	24,100
64	57.0	95.1	18,600

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	233,100
25	81.1	121.3	175,000
30	78.6	120.3	122,300
35	76.0	119.1	90,300
40	73.4	117.6	68,700
45	70.7	115.8	53,200
50	68.1	113.9	41,600
55	65.3	111.6	32,400
60	62.5	109.0	24,300
65	59.6	106.1	17,500
69	57.3	103.6	12,900



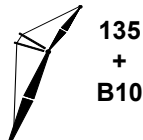
114,600 lb
+
0 lb



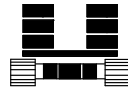
124.7 ft			
ft	o	ft	lb
22	83.2	131.7	220,600
25	81.8	131.3	175,400
30	79.5	130.3	122,900
35	77.1	129.2	90,800
40	74.7	127.9	69,200
45	72.3	126.3	53,700
50	69.9	124.5	42,000
55	67.4	122.4	32,600
60	64.9	120.1	24,500
65	62.3	117.5	17,700
70	59.6	114.6	12,000
74	57.4	112.0	8,100

134.5 ft			
ft	o	ft	lb
24	82.8	141.4	187,400
25	82.4	141.2	174,300
30	80.3	140.4	123,400
35	78.1	139.3	91,200
40	75.9	138.1	69,500
45	73.7	136.6	53,900
50	71.4	135.0	42,200
55	69.1	133.1	32,500
60	66.8	131.0	24,400
65	64.5	128.6	17,600
70	62.1	126.0	11,900
75	59.6	123.1	7,100

144.4 ft			
ft	o	ft	lb
25	82.9	151.2	173,000
30	80.9	150.4	123,800
35	78.9	149.4	91,600
40	76.9	148.3	69,900
45	74.8	146.9	54,300
50	72.7	145.4	42,600
55	70.6	143.6	32,600
60	68.5	141.7	24,600
65	66.3	139.5	17,900
70	64.1	137.1	12,200
75	61.9	134.5	7,400



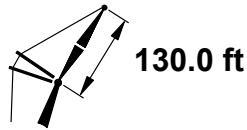
135
+
B10



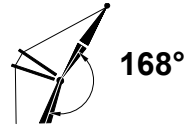
114,600 lb
+
0 lb



360°



130.0 ft

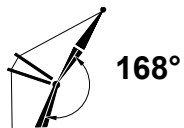
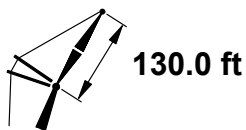
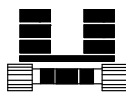
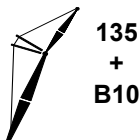


168°

65.6 ft			
ft	°	ft	lb
15	83.2	73.1	339,200
16	82.3	72.9	317,600
18	80.5	72.5	279,600
20	78.8	72.1	248,300
25	74.2	70.7	171,200
30	69.6	68.9	117,800
35	64.8	66.6	85,300
40	59.8	63.7	63,400
45	54.4	60.3	47,700
48	51.1	57.8	40,200

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	298,600
18	81.8	82.6	280,500
20	80.3	82.2	249,300
25	76.3	81.0	173,800
30	72.4	79.4	120,200
35	68.3	77.5	87,600
40	64.1	75.1	65,600
45	59.7	72.2	49,800
50	55.1	68.8	37,900
54	51.2	65.6	30,300

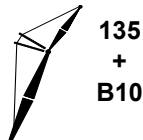
85.3 ft			
ft	°	ft	lb
18	82.8	92.5	281,400
20	81.4	92.2	250,200
25	78.0	91.1	175,900
30	74.5	89.8	122,100
35	70.9	88.1	89,400
40	67.3	86.0	67,400
45	63.6	83.6	51,500
50	59.7	80.7	39,600
55	55.6	77.3	30,300
60	51.4	73.4	21,900



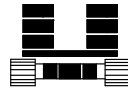
95.1 ft			
ft	°	ft	lb
19	82.9	102.3	265,300
20	82.3	102.2	250,500
25	79.2	101.2	177,600
30	76.1	100.0	123,500
35	73.0	98.5	90,700
40	69.8	96.7	68,600
45	66.5	94.5	52,700
50	63.1	92.0	40,700
55	59.7	89.2	31,400
60	56.1	85.9	23,000
65	52.3	82.1	15,900
66	51.5	81.2	14,700

105.0 ft			
ft	°	ft	lb
20	83.0	112.1	251,200
25	80.3	111.3	178,900
30	77.5	110.2	124,800
35	74.6	108.8	91,900
40	71.8	107.2	69,700
45	68.8	105.3	53,800
50	65.9	103.1	41,900
55	62.8	100.5	32,500
60	59.6	97.6	24,200
65	56.4	94.4	17,100
70	53.0	90.7	11,200
72	51.6	89.0	9,100

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	237,700
25	81.1	121.3	180,000
30	78.6	120.3	125,700
35	76.0	119.1	92,600
40	73.4	117.6	70,400
45	70.7	115.8	54,500
50	68.1	113.9	42,500
55	65.3	111.6	33,000
60	62.5	109.0	24,500
65	59.6	106.1	17,500
70	56.7	102.9	11,600
75	53.6	99.2	6,600



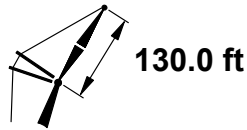
135
+
B10



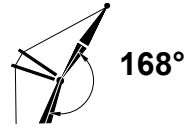
114,600 lb
+
0 lb



360°



130.0 ft

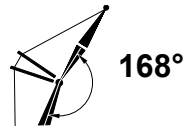
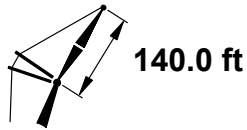
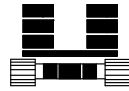
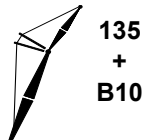


168°

124.7 ft			
ft	°	ft	lb
22	83.2	131.7	225,400
25	81.8	131.3	180,700
30	79.5	130.3	126,400
35	77.1	129.2	93,300
40	74.7	127.9	71,000
45	72.3	126.3	55,000
50	69.9	124.5	43,000
55	67.4	122.4	33,300
60	64.9	120.1	24,900
65	62.3	117.5	17,900
70	59.6	114.6	12,000
75	56.9	111.4	7,000

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	193,200
25	82.4	141.2	179,700
30	80.3	140.4	127,000
35	78.1	139.3	93,800
40	75.9	138.1	71,400
45	73.7	136.6	55,400
50	71.4	135.0	43,300
55	69.1	133.1	33,300
60	66.8	131.0	24,900
65	64.5	128.6	17,900
70	62.1	126.0	12,100
75	59.6	123.1	7,100

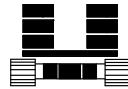
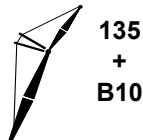
144.4 ft			
ft	°	ft	lb
25	82.9	151.2	178,400
30	80.9	150.4	127,500
35	78.9	149.4	94,200
40	76.9	148.3	71,900
45	74.8	146.9	55,800
50	72.7	145.4	43,800
55	70.6	143.6	33,600
60	68.5	141.7	25,200
65	66.3	139.5	18,300
70	64.1	137.1	12,500
75	61.9	134.5	7,500



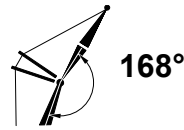
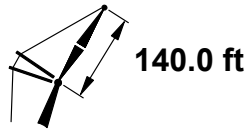
65.6 ft			
ft	°	ft	lb
15	83.2	73.1	336,500
16	82.3	72.9	314,400
18	80.5	72.5	276,000
20	78.8	72.1	244,700
25	74.2	70.7	167,100
30	69.6	68.9	114,100
35	64.8	66.6	81,900
40	59.8	63.7	60,200
45	54.4	60.3	44,600
48	51.1	57.8	37,100

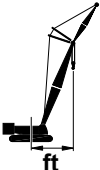
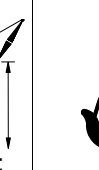
75.5 ft			
ft	°	ft	lb
17	82.6	82.7	295,100
18	81.8	82.6	277,100
20	80.3	82.2	245,900
25	76.3	81.0	170,000
30	72.4	79.4	116,800
35	68.3	77.5	84,400
40	64.1	75.1	62,600
45	59.7	72.2	46,900
50	55.1	68.8	35,100
54	51.2	65.6	27,100

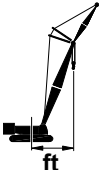
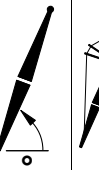
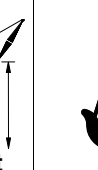
85.3 ft			
ft	°	ft	lb
18	82.8	92.5	278,100
20	81.4	92.2	247,000
25	78.0	91.1	172,400
30	74.5	89.8	118,900
35	70.9	88.1	86,400
40	67.3	86.0	64,600
45	63.6	83.6	48,900
50	59.7	80.7	37,000
55	55.6	77.3	27,200
60	51.4	73.4	18,700

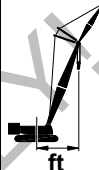


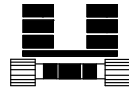
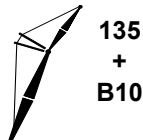
114,600 lb
+
0 lb



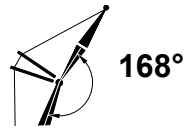
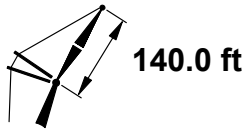
95.1 ft			
 ft	 °	 ft	 lb
19	82.9	102.3	262,100
20	82.3	102.2	247,300
25	79.2	101.2	174,100
30	76.1	100.0	120,500
35	73.0	98.5	87,900
40	69.8	96.7	65,900
45	66.5	94.5	50,200
50	63.1	92.0	38,300
55	59.7	89.2	28,400
60	56.1	85.9	20,000
65	52.3	82.1	12,900
66	51.5	81.2	11,700

105.0 ft			
 ft	 °	 ft	 lb
20	83.0	112.1	248,200
25	80.3	111.3	175,600
30	77.5	110.2	121,800
35	74.6	108.8	89,200
40	71.8	107.2	67,200
45	68.8	105.3	51,400
50	65.9	103.1	39,500
55	62.8	100.5	29,700
60	59.6	97.6	21,300
65	56.4	94.4	14,300
70	53.0	90.7	8,400
72	51.6	89.0	6,300

114.8 ft			
 ft	 °	 ft	 lb
21	83.1	121.9	234,700
25	81.1	121.3	176,800
30	78.6	120.3	122,800
35	76.0	119.1	90,000
40	73.4	117.6	68,000
45	70.7	115.8	52,100
50	68.1	113.9	40,200
55	65.3	111.6	30,100
60	62.5	109.0	21,800
65	59.6	106.1	14,800
70	56.7	102.9	8,900

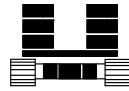
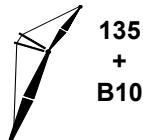


114,600 lb
+
0 lb

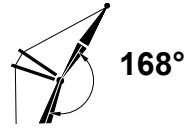
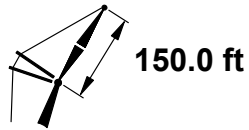


124.7 ft			
ft	°	ft	lb
22	83.2	131.7	222,600
25	81.8	131.3	176,900
30	79.5	130.3	123,700
35	77.1	129.2	90,800
40	74.7	127.9	68,700
45	72.3	126.3	52,800
50	69.9	124.5	40,800
55	67.4	122.4	30,600
60	64.9	120.1	22,200
65	62.3	117.5	15,300
70	59.6	114.6	9,400
75	56.9	111.4	4,500

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	189,400
25	82.4	141.2	175,900
30	80.3	140.4	124,300
35	78.1	139.3	91,300
40	75.9	138.1	69,100
45	73.7	136.6	53,200
50	71.4	135.0	40,900
55	69.1	133.1	30,600
60	66.8	131.0	22,300
65	64.5	128.6	15,400
70	62.1	126.0	9,600
75	59.6	123.1	4,600



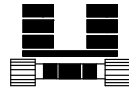
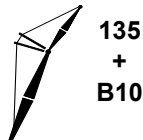
114,600 lb
+
0 lb



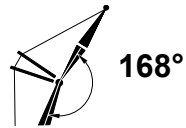
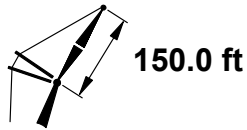
65.6 ft			
ft	°	ft	lb
15	83.2	73.1	334,200
16	82.3	72.9	311,700
18	80.5	72.5	273,400
20	78.8	72.1	242,100
25	74.2	70.7	164,000
30	69.6	68.9	111,400
35	64.8	66.6	79,400
40	59.8	63.7	57,900
45	54.4	60.3	42,400
48	51.1	57.8	35,100

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	292,600
18	81.8	82.6	274,600
20	80.3	82.2	243,400
25	76.3	81.0	167,100
30	72.4	79.4	114,300
35	68.3	77.5	82,100
40	64.1	75.1	60,500
45	59.7	72.2	45,000
50	55.1	68.8	33,200
54	51.2	65.6	24,700

85.3 ft			
ft	°	ft	lb
18	82.8	92.5	275,700
20	81.4	92.2	244,600
25	78.0	91.1	169,600
30	74.5	89.8	116,600
35	70.9	88.1	84,300
40	67.3	86.0	62,600
45	63.6	83.6	47,000
50	59.7	80.7	35,300
55	55.6	77.3	25,000
60	51.4	73.4	16,600



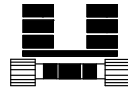
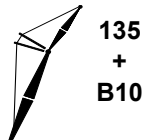
114,600 lb
+
0 lb



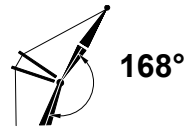
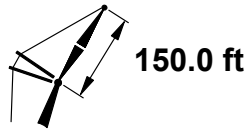
95.1 ft			
ft	°	ft	lb
19	82.9	102.3	259,800
20	82.3	102.2	245,100
25	79.2	101.2	171,500
30	76.1	100.0	118,200
35	73.0	98.5	85,900
40	69.8	96.7	64,100
45	66.5	94.5	48,400
50	63.1	92.0	36,600
55	59.7	89.2	26,400
60	56.1	85.9	18,000
65	52.3	82.1	11,000
66	51.5	81.2	9,800

105.0 ft			
ft	°	ft	lb
20	83.0	112.1	246,000
25	80.3	111.3	173,100
30	77.5	110.2	119,700
35	74.6	108.8	87,300
40	71.8	107.2	65,400
45	68.8	105.3	49,800
50	65.9	103.1	38,000
55	62.8	100.5	27,700
60	59.6	97.6	19,400
65	56.4	94.4	12,500
70	53.0	90.7	6,700
72	51.6	89.0	4,600

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	232,600
25	81.1	121.3	174,300
30	78.6	120.3	120,800
35	76.0	119.1	88,200
40	73.4	117.6	66,300
45	70.7	115.8	50,600
50	68.1	113.9	38,500
55	65.3	111.6	28,300
60	62.5	109.0	20,000
65	59.6	106.1	13,100
70	56.7	102.9	7,300



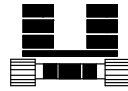
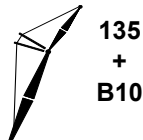
114,600 lb
+
0 lb



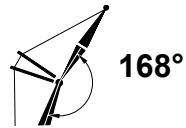
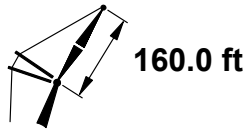
124.7 ft			
ft	°	ft	lb
22	83.2	131.7	219,900
25	81.8	131.3	173,900
30	79.5	130.3	121,700
35	77.1	129.2	89,000
40	74.7	127.9	67,100
45	72.3	126.3	51,300
50	69.9	124.5	39,000
55	67.4	122.4	28,800
60	64.9	120.1	20,500
65	62.3	117.5	13,600
70	59.6	114.6	7,900

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	186,400
25	82.4	141.2	173,000
30	80.3	140.4	122,400
35	78.1	139.3	89,600
40	75.9	138.1	67,600
45	73.7	136.6	51,800
50	71.4	135.0	39,100
55	69.1	133.1	28,900
60	66.8	131.0	20,700
65	64.5	128.6	13,800
70	62.1	126.0	8,000

REFERENCE ONLY!



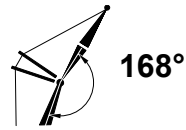
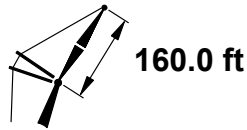
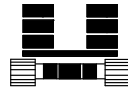
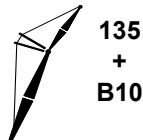
114,600 lb
+
0 lb



65.6 ft			
ft	°	ft	lb
15	83.2	73.1	330,300
16	82.3	72.9	307,800
18	80.5	72.5	269,600
20	78.8	72.1	238,400
25	74.2	70.7	159,700
30	69.6	68.9	107,600
35	64.8	66.6	75,800
40	59.8	63.7	54,500
45	54.4	60.3	39,200
48	51.1	57.8	31,300

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	289,000
18	81.8	82.6	270,900
20	80.3	82.2	239,900
25	76.3	81.0	163,100
30	72.4	79.4	110,700
35	68.3	77.5	78,800
40	64.1	75.1	57,400
45	59.7	72.2	42,000
50	55.1	68.8	29,400
54	51.2	65.6	21,000

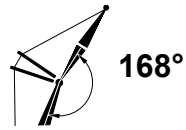
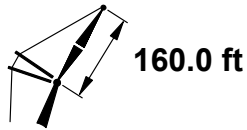
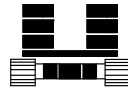
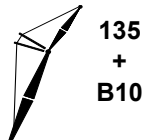
85.3 ft			
ft	°	ft	lb
18	82.8	92.5	272,200
20	81.4	92.2	241,200
25	78.0	91.1	165,800
30	74.5	89.8	113,200
35	70.9	88.1	81,200
40	67.3	86.0	59,700
45	63.6	83.6	44,200
50	59.7	80.7	31,800
55	55.6	77.3	21,600
60	51.4	73.4	13,200



95.1 ft			
ft	°	ft	lb
19	82.9	102.3	256,500
20	82.3	102.2	241,800
25	79.2	101.2	167,900
30	76.1	100.0	115,000
35	73.0	98.5	82,900
40	69.8	96.7	61,300
45	66.5	94.5	45,800
50	63.1	92.0	33,300
55	59.7	89.2	23,100
60	56.1	85.9	14,800
65	52.3	82.1	7,900
66	51.5	81.2	6,700

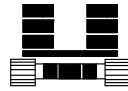
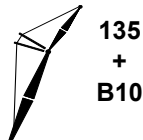
105.0 ft			
ft	°	ft	lb
20	83.0	112.1	242,800
25	80.3	111.3	169,600
30	77.5	110.2	116,600
35	74.6	108.8	84,400
40	71.8	107.2	62,800
45	68.8	105.3	47,200
50	65.9	103.1	34,800
55	62.8	100.5	24,600
60	59.6	97.6	16,300
65	56.4	94.4	9,500

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	229,500
25	81.1	121.3	170,400
30	78.6	120.3	117,800
35	76.0	119.1	85,500
40	73.4	117.6	63,700
45	70.7	115.8	48,100
50	68.1	113.9	35,500
55	65.3	111.6	25,300
60	62.5	109.0	17,100
65	59.6	106.1	10,200
70	56.7	102.9	4,500

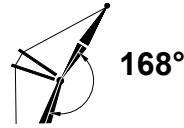
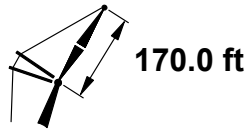


124.7 ft			
ft	°	ft	lb
22	83.2	131.7	215,500
25	81.8	131.3	169,800
30	79.5	130.3	118,800
35	77.1	129.2	86,400
40	74.7	127.9	64,600
45	72.3	126.3	48,800
50	69.9	124.5	36,000
55	67.4	122.4	25,900
60	64.9	120.1	17,700
65	62.3	117.5	10,900
70	59.6	114.6	5,200

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	182,300
25	82.4	141.2	169,100
30	80.3	140.4	119,600
35	78.1	139.3	87,000
40	75.9	138.1	65,200
45	73.7	136.6	48,900
50	71.4	135.0	36,200
55	69.1	133.1	26,100
60	66.8	131.0	17,900
65	64.5	128.6	11,200
70	62.1	126.0	5,400



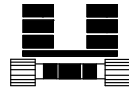
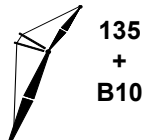
114,600 lb
+
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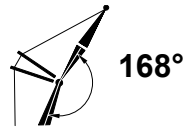
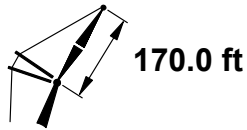
65.6 ft			
ft	°	ft	lb
15	83.2	73.1	326,700
16	82.3	72.9	304,200
18	80.5	72.5	266,100
20	78.8	72.1	234,900
25	74.2	70.7	155,600
30	69.6	68.9	104,000
35	64.8	66.6	72,500
40	59.8	63.7	51,400
45	54.4	60.3	35,700
48	51.1	57.8	27,500

75.5 ft			
ft	°	ft	lb
17	82.6	82.7	285,600
18	81.8	82.6	267,600
20	80.3	82.2	236,600
25	76.3	81.0	159,300
30	72.4	79.4	107,400
35	68.3	77.5	75,800
40	64.1	75.1	54,500
45	59.7	72.2	39,000
50	55.1	68.8	26,100
54	51.2	65.6	17,700

85.3 ft			
ft	°	ft	lb
18	82.8	92.5	269,000
20	81.4	92.2	238,100
25	78.0	91.1	162,200
30	74.5	89.8	110,000
35	70.9	88.1	78,300
40	67.3	86.0	57,000
45	63.6	83.6	41,500
50	59.7	80.7	28,700
55	55.6	77.3	18,500
60	51.4	73.4	10,300



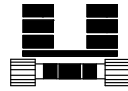
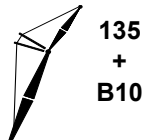
114,600 lb
+
0 lb



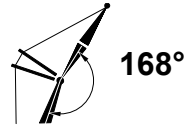
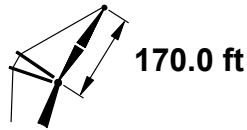
95.1 ft			
ft	°	ft	lb
19	82.9	102.3	253,400
20	82.3	102.2	238,800
25	79.2	101.2	164,400
30	76.1	100.0	112,000
35	73.0	98.5	80,200
40	69.8	96.7	58,700
45	66.5	94.5	43,200
50	63.1	92.0	30,300
55	59.7	89.2	20,200
60	56.1	85.9	12,000
65	52.3	82.1	5,200
66	51.5	81.2	4,000

105.0 ft			
ft	°	ft	lb
20	83.0	112.1	239,800
25	80.3	111.3	166,200
30	77.5	110.2	113,700
35	74.6	108.8	81,800
40	71.8	107.2	60,400
45	68.8	105.3	44,700
50	65.9	103.1	31,900
55	62.8	100.5	21,900
60	59.6	97.6	13,700
65	56.4	94.4	6,900

114.8 ft			
ft	°	ft	lb
21	83.1	121.9	226,700
25	81.1	121.3	166,500
30	78.6	120.3	115,000
35	76.0	119.1	83,000
40	73.4	117.6	61,400
45	70.7	115.8	45,400
50	68.1	113.9	32,700
55	65.3	111.6	22,700
60	62.5	109.0	14,500
65	59.6	106.1	7,800



114,600 lb
+
0 lb



124.7 ft			
ft	°	ft	lb
22	83.2	131.7	211,200
25	81.8	131.3	166,000
30	79.5	130.3	116,100
35	77.1	129.2	84,000
40	74.7	127.9	62,300
45	72.3	126.3	46,000
50	69.9	124.5	33,400
55	67.4	122.4	23,400
60	64.9	120.1	15,300
65	62.3	117.5	8,500

134.5 ft			
ft	°	ft	lb
24	82.8	141.4	178,500
25	82.4	141.2	165,300
30	80.3	140.4	116,400
35	78.1	139.3	84,700
40	75.9	138.1	62,700
45	73.7	136.6	46,300
50	71.4	135.0	33,700
55	69.1	133.1	23,700
60	66.8	131.0	15,600
65	64.5	128.6	8,900