

Liftcrane Boom Capacities

Boom No. 76

178,000 lb Crane Counterweight

70,500 lb Carbody Counterweight

360 Degree Rating

**14000
SERIES 3**



LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are denoted by an asterisk (*). Capacities indicated by (b) require 10,000 lb minimum weight.

Upper boom point capacity for liftcrane service with single part whip line is 31,500 lb or 60,000 lb with two part whip line. When boom butt mounted auxiliary drum is used, capacity with single part whip line is 20,000 lb, or 40,000 lb with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

233 ft thru 292 ft boom lengths require only the middle two sheaves in lower boom point. All other sheaves must be removed from lower boom point.

Weight of upper boom point, jib, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is considered part of main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate in a level position on a firm uniformly supporting surface with gantry up. Refer to Boom Rigging **No. A16106**, Wire Rope Specification chart **No. 8789-A**, Wind Conditions chart **No. 8790-A**, and Counterweight Arrangement chart **No. 9461-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.

MACHINE TRAVEL: Machine to travel on a firm, level and uniformly supporting surface and boom within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart **No. 8787-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 ($^{\circ}$) 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, 178,000 lb crane counterweight, two 26,500 lb carbody counterweights, and four 4,375 lb carbody counterweights.

WITHOUT BOOM CATWALKS			
Maximum Boom and Jib Lengths Lifted Unassisted			
Over End of Blocked Crawlers		Over Side of Crawlers	
Boom Length	Jib No. 134	Boom Length	Jib No. 134
(a) 292 ft	—	(a) 262 ft	—
282 ft	—	253 ft	—
272 ft	—	243 ft	30 ft
262 ft	40 ft	233 ft	60 ft
253 ft	70 ft	223 ft	70 ft
243 ft	80 ft	213 ft	80 ft
Load block, hook and weight ball on ground at start. (a) Upper boom point cannot be used on 292 ft boom or over side of crawlers on 262 ft boom.			

Consult jib chart for jib capacities.

Upper boom point cannot be used when jib is attached.

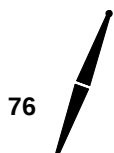
WITH BOOM CATWALKS			
Maximum Boom and Jib Lengths Lifted Unassisted			
Over End of Blocked Crawlers		Over Side of Crawlers	
Boom Length	Jib No. 134	Boom Length	Jib No. 134
(a)(b) 292 ft	—	(a) 262 ft	—
(b) 282 ft	—	253 ft	—
272 ft	—	243 ft	30 ft
262 ft	40 ft	233 ft	(b) 60 ft
253 ft	(b) 70 ft	223 ft	70 ft
243 ft	80 ft	213 ft	80 ft
Load block, hook and weight ball on ground at start. (a) Upper boom point cannot be used on 292 ft boom or over side of crawlers on 262 ft boom. 292 ft boom <i>must</i> be rigged with one hoist lead line. (b) Requires lowerworks jacking cylinders.			

Deduct From Capacities When Jib Is Attached	
Jib Length	Jib No. 134
30 ft	3,900 lb
40 ft	4,700 lb
50 ft	5,600 lb
60 ft	6,600 lb
70 ft	7,600 lb
80 ft	8,700 lb

Upper Boom Point Deduct
Deduct 1,100 lb from capacities when upper boom point is attached.

Boom Catwalks Deduct
Deduct 600 lb from capacities when boom catwalks are attached.

Explanation of Symbols



Boom No. 76



Crane Counterweight
+
Carbody Counterweight



360 Degree Rating



Boom Length



Operating Radius
(see page 1)



Boom Angle
(see page 1)

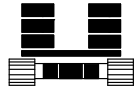


Boom Point Elevation
(see page 1)



Lifting Capacities
(see page 1)

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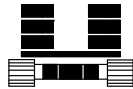

 178,000 lb
+
70,500 lb


65.6 ft			
ft	°	ft	lb
14	83.2	72.9	441,000 *b
15	82.3	72.7	414,800 *b
16	81.4	72.5	390,900 *b
17	80.5	72.3	369,600 *b
18	79.7	72.1	350,400 *b
19	78.8	71.9	333,100 *b
20	77.9	71.7	316,900 *b
22	76.1	71.1	288,000 *
24	74.2	70.5	264,000 *
26	72.4	69.8	243,700 *
28	70.5	69.1	226,300 *
30	68.6	68.3	211,300 *
32	66.7	67.4	198,000 *
34	64.8	66.4	186,400 *
36	62.8	65.3	176,000 *
38	60.8	64.2	166,500
40	58.7	62.9	154,800
42	56.6	61.5	144,500
44	54.4	60.1	135,400
46	52.2	58.5	127,300
48	49.9	56.7	120,000
50	47.5	54.8	113,500
55	41.0	49.3	99,600
60	33.4	42.3	88,300
65	23.7	32.3	79,100

75.5 ft			
ft	°	ft	lb
16	82.6	82.5	389,300 *b
17	81.8	82.4	369,300 *b
18	81.0	82.2	350,100 *b
19	80.3	82.0	332,800 *b
20	79.5	81.8	316,900 *b
22	77.9	81.3	288,000 *
24	76.4	80.8	264,000 *
26	74.8	80.2	243,700 *
28	73.2	79.6	226,300 *
30	71.6	78.9	211,200 *
32	69.9	78.1	198,000 *
34	68.3	77.3	186,400 *
36	66.6	76.4	176,000 *
38	64.9	75.4	166,700
40	63.2	74.3	155,000
42	61.5	73.2	144,700
44	59.7	72.0	135,600
46	57.9	70.7	127,500
48	56.1	69.3	120,200
50	54.2	67.8	113,600
55	49.2	63.6	99,700
60	43.8	58.6	88,600
65	37.8	52.5	79,400
70	30.8	44.6	71,700
75	21.6	33.6	65,000

85.3 ft			
ft	°	ft	lb
17	82.8	92.3	356,600 *
18	82.1	92.2	349,700 *
19	81.4	92.0	332,400 *
20	80.7	91.8	316,600 *
22	79.3	91.4	288,000 *
24	78.0	90.9	264,000 *
26	76.6	90.4	243,700 *
28	75.2	89.9	226,300 *
30	73.8	89.3	211,200 *
32	72.4	88.6	198,000 *
34	70.9	87.9	186,400 *
36	69.5	87.1	176,000 *
38	68.0	86.3	166,700 *
40	66.6	85.4	155,000
42	65.1	84.4	144,700
44	63.6	83.4	135,600
46	62.0	82.3	127,500
48	60.5	81.1	120,200
50	58.9	79.9	113,600
55	54.8	76.4	99,700
60	50.5	72.4	88,600
65	45.9	67.7	79,400
70	40.9	62.1	71,700
75	35.2	55.3	65,200
80	28.6	46.8	59,500
85	19.8	34.8	54,600

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178,000 lb
+
70,500 lb



360°

95.1 ft			
ft	°	ft	lb
18	82.9	102.1	343,500*
19	82.3	102.0	332,200*
20	81.7	101.8	316,500*
22	80.5	101.4	288,000*
24	79.2	101.0	264,000*
26	78.0	100.6	243,700*
28	76.8	100.1	226,300*
30	75.5	99.5	211,200*
32	74.2	98.9	198,000*
34	73.0	98.3	186,400*
36	71.7	97.6	176,000*
38	70.4	96.9	166,700*
40	69.1	96.1	155,100
42	67.8	95.2	144,800
44	66.5	94.3	135,700
46	65.2	93.4	127,600
48	63.8	92.4	120,300
50	62.5	91.3	113,700
55	59.0	88.3	99,800
60	55.3	84.9	88,700
65	51.5	81.0	79,500
70	47.5	76.6	71,800
75	43.1	71.4	65,300
80	38.4	65.3	59,700
85	33.0	58.0	54,800
90	26.7	48.7	50,500
95	18.4	35.9	46,700

105.0 ft			
ft	°	ft	lb
19	83.0	111.9	315,000*
20	82.5	111.8	312,000*
22	81.4	111.4	288,000*
24	80.3	111.1	264,000*
26	79.1	110.7	243,700*
28	78.0	110.2	226,300*
30	76.9	109.7	211,200*
32	75.8	109.2	198,000*
34	74.6	108.6	186,400*
36	73.5	108.0	176,000*
38	72.3	107.3	166,700*
40	71.2	106.6	155,000
42	70.0	105.9	144,700
44	68.8	105.1	135,500
46	67.7	104.2	127,400
48	66.5	103.3	120,100
50	65.3	102.4	113,500
55	62.2	99.8	99,600
60	59.0	96.8	88,400
65	55.7	93.5	79,300
70	52.3	89.7	71,600
75	48.7	85.4	65,100
80	44.9	80.5	59,500
85	40.8	74.8	54,700
90	36.3	68.2	50,400
95	31.2	60.4	46,600
100	25.1	50.5	43,200
105	17.1	36.7	40,100

114.8 ft			
ft	°	ft	lb
22	82.1	121.4	288,000*
24	81.1	121.1	264,000*
26	80.1	120.7	243,700*
28	79.1	120.3	226,300*
30	78.0	119.9	211,200*
32	77.0	119.4	198,000*
34	76.0	118.9	186,400*
36	74.9	118.3	176,000*
38	73.9	117.7	166,700*
40	72.9	117.1	155,000
42	71.8	116.4	144,600
44	70.7	115.6	135,500
46	69.7	114.9	127,400
48	68.6	114.1	120,100
50	67.5	113.2	113,500
55	64.8	110.9	99,500
60	61.9	108.3	88,400
65	59.0	105.3	79,200
70	56.1	102.0	71,500
75	52.9	98.3	65,000
80	49.7	94.1	59,500
85	46.3	89.4	54,600
90	42.6	84.1	50,300
95	38.7	78.1	46,600
100	34.4	71.0	43,200
105	29.6	62.7	40,200
110	23.8	52.2	37,400
115	16.0	37.5	34,900

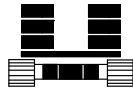
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 178,000 lb
+
70,500 lb


360°

124.7 ft				134.5 ft				144.4 ft			
ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb
22	82.7	131.4	281,600*	24	82.4	141.0	264,000*	24	82.9	151.0	238,600*
24	81.8	131.1	264,000*	26	81.6	140.7	243,700*	26	82.1	150.7	231,900*
26	80.9	130.7	243,700*	28	80.7	140.4	226,300*	28	81.3	150.4	225,200*
28	79.9	130.3	226,300*	30	79.8	140.0	211,200*	30	80.5	150.0	211,200*
30	79.0	129.9	211,200*	32	79.0	139.6	198,000*	32	79.7	149.6	198,000*
32	78.1	129.5	198,000*	34	78.1	139.1	186,400*	34	78.9	149.2	186,400*
34	77.1	129.0	186,400*	36	77.2	138.7	176,000*	36	78.1	148.8	175,800*
36	76.2	128.5	176,000*	38	76.3	138.2	166,700	38	77.3	148.3	166,300*
38	75.2	128.0	166,700*	40	75.4	137.6	154,900	40	76.5	147.8	154,700
40	74.3	127.4	155,000	42	74.6	137.0	144,500	42	75.6	147.3	144,300
42	73.3	126.7	144,600	44	73.7	136.4	135,400	44	74.8	146.7	135,100
44	72.3	126.1	135,500	46	72.8	135.8	127,200	46	74.0	146.1	126,900
46	71.4	125.4	127,300	48	71.9	135.1	119,900	48	73.2	145.5	119,600
48	70.4	124.7	120,000	50	71.0	134.4	113,300	50	72.3	144.8	113,000
50	69.4	123.9	113,400	55	68.7	132.5	99,400	55	70.2	143.1	99,000
55	66.9	121.8	99,500	60	66.4	130.3	88,200	60	68.1	141.1	87,800
60	64.4	119.4	88,300	65	64.0	127.9	79,000	65	65.9	138.8	78,600
65	61.8	116.7	79,100	70	61.6	125.2	71,300	70	63.7	136.4	71,000
70	59.1	113.8	71,500	75	59.1	122.3	64,800	75	61.4	133.7	64,500
75	56.3	110.5	65,000	80	56.6	119.0	59,200	80	59.1	130.7	58,900
80	53.5	106.8	59,400	85	53.9	115.4	54,400	85	56.8	127.5	54,000
85	50.5	102.8	54,500	90	51.2	111.4	50,100	90	54.3	124.0	49,800
90	47.4	98.3	50,300	95	48.4	107.1	46,400	95	51.8	120.1	46,000
95	44.2	93.2	46,500	100	45.4	102.2	43,000	100	49.2	115.8	42,600
100	40.7	87.6	43,200	105	42.3	96.9	40,000	105	46.5	111.2	39,600
105	36.9	81.1	40,100	110	39.0	90.8	37,300	110	43.7	106.0	36,900
110	32.8	73.7	37,400	115	35.4	84.0	34,800	115	40.6	100.3	34,500
115	28.1	64.8	34,900	120	31.4	76.1	32,600	120	37.4	93.9	32,200
120	22.6	53.7	32,700	125	26.9	66.8	30,500	125	34.0	86.7	30,200
125	15.0	38.1	30,500	130	21.5	55.1	28,600	130	30.1	78.5	28,300
								135	25.8	68.7	26,500
								140	20.5	56.4	24,900

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178,000 lb
+
70,500 lb



154.2 ft			
ft	°	ft	lb
26	82.6	160.6	225,200*
28	81.9	160.3	218,900*
30	81.1	160.0	211,200*
32	80.4	159.6	197,900*
34	79.6	159.3	186,100*
36	78.9	158.8	175,500*
38	78.1	158.4	166,000*
40	77.3	157.9	154,500
42	76.6	157.4	144,100
44	75.8	156.9	134,900
46	75.0	156.4	126,800
48	74.3	155.8	119,400
50	73.5	155.2	112,800
55	71.5	153.5	98,800
60	69.5	151.7	87,600
65	67.5	149.6	78,400
70	65.5	147.4	70,700
75	63.4	144.9	64,200
80	61.3	142.2	58,600
85	59.2	139.2	53,800
90	56.9	136.0	49,500
95	54.7	132.5	45,700
100	52.3	128.7	42,400
105	49.9	124.5	39,400
110	47.4	120.0	36,700
115	44.8	115.0	34,200
120	42.1	109.6	32,000
125	39.2	103.6	29,900
130	36.1	96.9	28,100
135	32.7	89.4	26,300
140	29.0	80.7	24,700
145	24.7	70.5	23,200
150	19.6	57.7	21,800

164.0 ft			
ft	°	ft	lb
28	82.4	170.3	206,800*
30	81.7	170.0	201,800*
32	81.0	169.6	196,700*
34	80.3	169.3	185,800*
36	79.5	168.9	175,200*
38	78.8	168.5	165,700*
40	78.1	168.0	154,400
42	77.4	167.6	144,000
44	76.7	167.1	134,800
46	76.0	166.6	126,600
48	75.2	166.0	119,300
50	74.5	165.5	112,700
55	72.7	163.9	98,700
60	70.8	162.2	87,500
65	69.0	160.3	78,300
70	67.1	158.2	70,600
75	65.1	155.9	64,000
80	63.2	153.4	58,400
85	61.2	150.7	53,600
90	59.2	147.7	49,300
95	57.1	144.5	45,600
100	55.0	141.0	42,200
105	52.8	137.3	39,200
110	50.5	133.2	36,500
115	48.2	128.8	34,100
120	45.8	124.0	31,800
125	43.3	118.8	29,800
130	40.6	113.1	27,900
135	37.8	106.7	26,200
140	34.8	99.7	24,600
145	31.5	91.9	23,100
150	27.9	82.8	21,700
155	23.8	72.1	20,400
160	18.8	58.8	19,100

173.9 ft			
ft	°	ft	lb
28	82.8	180.2	199,400*
30	82.1	179.9	194,500*
32	81.5	179.6	189,800*
34	80.8	179.3	185,100*
36	80.1	178.9	174,900*
38	79.5	178.5	165,400*
40	78.8	178.1	154,200
42	78.1	177.7	143,800
44	77.4	177.2	134,600
46	76.8	176.7	126,400
48	76.1	176.2	119,100
50	75.4	175.7	112,500
55	73.7	174.2	98,400
60	72.0	172.6	87,200
65	70.2	170.8	78,000
70	68.4	168.9	70,300
75	66.6	166.7	63,800
80	64.8	164.4	58,200
85	63.0	161.9	53,300
90	61.1	159.1	49,100
95	59.2	156.2	45,300
100	57.2	153.0	41,900
105	55.2	149.6	38,900
110	53.2	145.8	36,200
115	51.1	141.9	33,800
120	48.9	137.5	31,500
125	46.7	132.9	29,500
130	44.3	127.8	27,600
135	41.9	122.4	25,900
140	39.3	116.4	24,300
145	36.6	109.8	22,800
150	33.7	102.5	21,400
155	30.5	94.2	20,100
160	27.0	84.8	18,900
165	23.0	73.7	17,800
170	18.1	59.8	16,700

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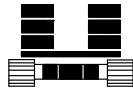

 178,000 lb
+
70,500 lb


183.7 ft			
ft	°	ft	lb
30	82.6	189.9	177,400 *
32	81.9	189.6	173,400 *
34	81.3	189.3	169,600 *
36	80.7	188.9	166,000 *
38	80.0	188.6	162,400 *
40	79.4	188.2	154,000
42	78.8	187.8	143,600
44	78.1	187.3	134,300
46	77.5	186.9	126,100
48	76.9	186.4	118,800
50	76.2	185.9	112,100
55	74.6	184.5	98,100
60	73.0	183.0	86,900
65	71.3	181.3	77,600
70	69.7	179.5	69,900
75	68.0	177.5	63,400
80	66.3	175.3	57,800
85	64.5	172.9	52,900
90	62.8	170.4	48,700
95	61.0	167.6	44,900
100	59.2	164.7	41,500
105	57.4	161.5	38,500
110	55.5	158.1	35,800
115	53.5	154.4	33,400
120	51.6	150.5	31,100
125	49.5	146.3	29,100
130	47.4	141.7	27,200
135	45.2	136.8	25,500
140	43.0	131.5	23,900
145	40.6	125.8	22,400
150	38.1	119.5	21,000
155	35.4	112.7	19,700
160	32.6	105.1	18,500
165	29.5	96.5	17,400
170	26.1	86.8	16,300
175	22.2	75.2	15,300
180	17.4	60.8	14,300

193.6 ft			
ft	°	ft	lb
30	83.0	199.8	170,200 *
32	82.4	199.5	166,400 *
34	81.8	199.2	162,800 *
36	81.2	198.9	159,200 *
38	80.6	198.6	155,700 *
40	80.0	198.2	152,300 *
42	79.4	197.8	143,300
44	78.7	197.4	134,100
46	78.1	197.0	125,900
48	77.5	196.5	118,500
50	76.9	196.0	111,900
55	75.4	194.7	97,800
60	73.9	193.3	86,600
65	72.3	191.7	77,300
70	70.7	190.0	69,600
75	69.2	188.1	63,100
80	67.6	186.0	57,500
85	65.9	183.8	52,600
90	64.3	181.4	48,300
95	62.6	178.8	44,600
100	60.9	176.1	41,200
105	59.2	173.1	38,200
110	57.5	170.0	35,500
115	55.7	166.6	33,000
120	53.9	163.0	30,800
125	52.0	159.1	28,800
130	50.1	155.0	26,900
135	48.1	150.5	25,200
140	46.0	145.7	23,600
145	43.9	140.6	22,100
150	41.7	135.1	20,700
155	39.4	129.1	19,400
160	37.0	122.6	18,200
165	34.4	115.5	17,100
170	31.6	107.6	16,000
175	28.6	98.7	15,000
180	25.3	88.6	14,100
185	21.4	76.6	13,100
190	16.8	61.6	12,300

203.4 ft			
ft	°	ft	lb
32	82.7	209.5	150,400 *
34	82.2	209.2	149,000 *
36	81.6	208.9	147,600 *
38	81.0	208.6	146,100 *
40	80.4	208.2	144,100 *
42	79.9	207.8	141,000 *
44	79.3	207.4	133,900
46	78.7	207.0	125,700
48	78.1	206.6	118,300
50	77.6	206.1	111,700
55	76.1	204.9	97,600
60	74.7	203.6	86,400
65	73.2	202.1	77,100
70	71.7	200.4	69,400
75	70.2	198.6	62,900
80	68.7	196.7	57,200
85	67.2	194.6	52,400
90	65.6	192.3	48,100
95	64.1	189.9	44,300
100	62.5	187.3	41,000
105	60.9	184.6	38,000
110	59.2	181.6	35,200
115	57.6	178.5	32,800
120	55.9	175.1	30,600
125	54.1	171.5	28,500
130	52.4	167.7	26,600
135	50.5	163.6	24,900
140	48.7	159.3	23,300
145	46.8	154.6	21,800
150	44.8	149.6	20,400
155	42.7	144.3	19,200
160	40.6	138.5	18,000
165	38.3	132.3	16,800
170	35.9	125.6	15,800
175	33.4	118.2	14,800
180	30.7	110.0	13,800
185	27.8	100.8	12,900
190	24.5	90.4	12,100
195	20.8	78.0	11,300
200	16.2	62.4	10,500

76



178,000 lb
+
70,500 lb



360°

213.3 ft			
ft	°	ft	lb
34	82.5	219.1	136,500*
36	82.0	218.8	132,700*
38	81.4	218.5	131,400*
40	80.9	218.2	130,100*
42	80.3	217.8	128,800*
44	79.8	217.5	128,100*
46	79.3	217.1	125,500
48	78.7	216.7	118,100
50	78.2	216.2	111,400
55	76.8	215.1	97,400
60	75.4	213.8	86,100
65	74.0	212.3	76,800
70	72.6	210.8	69,100
75	71.2	209.1	62,500
80	69.7	207.3	56,900
85	68.3	205.3	52,000
90	66.8	203.1	47,800
95	65.4	200.9	44,000
100	63.9	198.4	40,600
105	62.3	195.8	37,600
110	60.8	193.0	34,900
115	59.2	190.1	32,500
120	57.7	186.9	30,200
125	56.0	183.6	28,200
130	54.4	180.1	26,300
135	52.7	176.3	24,600
140	51.0	172.3	23,000
145	49.2	168.0	21,500
150	47.4	163.4	20,100
155	45.5	158.6	18,800
160	43.6	153.4	17,600
165	41.6	147.9	16,500
170	39.5	141.9	15,500
175	37.3	135.4	14,500
180	35.0	128.4	13,500
185	32.5	120.8	12,600
190	29.9	112.3	11,800
195	27.0	102.9	11,000
200	23.8	92.1	10,200
205	20.1	79.3	9,500
210	15.6	63.2	8,800

223.1 ft			
ft	°	ft	lb
34	82.9	229.1	135,800*
36	82.3	228.8	132,000*
38	81.8	228.5	130,700*
40	81.3	228.2	129,400*
42	80.8	227.8	128,100*
44	80.3	227.5	127,400*
46	79.7	227.1	125,100
48	79.2	226.7	117,700
50	78.7	226.3	111,000
55	77.4	225.2	96,900
60	76.0	224.0	85,600
65	74.7	222.6	76,300
70	73.4	221.1	68,600
75	72.0	219.5	62,000
80	70.7	217.8	56,400
85	69.3	215.9	51,500
90	67.9	213.9	47,200
95	66.5	211.7	43,400
100	65.1	209.4	40,100
105	63.7	206.9	37,100
110	62.2	204.3	34,300
115	60.7	201.5	31,900
120	59.3	198.6	29,700
125	57.7	195.4	27,600
130	56.2	192.1	25,700
135	54.6	188.6	24,000
140	53.0	184.9	22,400
145	51.4	180.9	20,900
150	49.7	176.7	19,500
155	48.0	172.2	18,300
160	46.2	167.5	17,100
165	44.4	162.4	15,900
170	42.5	157.1	14,900
175	40.5	151.3	13,900
180	38.5	145.1	12,900
185	36.4	138.4	12,100
190	34.1	131.2	11,200
195	31.7	123.3	10,400
200	29.1	114.6	9,700
205	26.3	104.8	8,900
210	23.2	93.7	8,200
215	19.5	80.5	7,600
220	15.1	63.9	6,900

232.9 ft			
ft	°	ft	lb
36	82.7	238.7	122,600*
38	82.2	238.4	122,100*
40	81.7	238.1	121,600*
42	81.2	237.8	121,000*
44	80.7	237.5	120,500*
46	80.2	237.1	119,900*
48	79.7	236.7	118,000
50	79.2	236.4	111,300
55	77.9	235.3	97,200
60	76.6	234.1	85,900
65	75.4	232.8	76,600
70	74.1	231.4	68,900
75	72.8	229.9	62,300
80	71.5	228.2	56,700
85	70.2	226.4	51,800
90	68.9	224.5	47,500
95	67.6	222.4	43,700
100	66.2	220.2	40,400
105	64.9	217.9	37,300
110	63.5	215.4	34,600
115	62.1	212.8	32,200
120	60.7	210.0	29,900
125	59.3	207.0	27,900
130	57.8	203.9	26,000
135	56.3	200.6	24,300
140	54.8	197.1	22,700
145	53.3	193.4	21,200
150	51.7	189.5	19,800
155	50.2	185.4	18,500
160	48.5	181.0	17,300
165	46.8	176.3	16,200
170	45.1	171.4	15,100
175	43.3	166.2	14,100
180	41.5	160.6	13,200
185	39.6	154.6	12,300
190	37.6	148.2	11,500
195	35.5	141.3	10,700
200	33.3	133.9	9,900
205	30.9	125.7	9,200
210	28.4	116.8	8,500
215	25.6	106.7	7,900
220	22.6	95.2	7,200
225	19.0	81.6	6,600

76

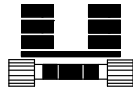

 178,000 lb
+
70,500 lb


242.8 ft			
ft	°	ft	lb
36	83.0	248.7	111,600*
38	82.5	248.4	111,100*
40	82.0	248.1	110,600*
42	81.5	247.8	110,000*
44	81.1	247.5	109,500*
46	80.6	247.1	109,000*
48	80.1	246.8	108,500*
50	79.6	246.4	108,000*
55	78.4	245.4	97,000
60	77.2	244.2	85,700
65	76.0	243.0	76,400
70	74.8	241.6	68,600
75	73.5	240.2	62,000
80	72.3	238.6	56,400
85	71.0	236.9	51,500
90	69.8	235.0	47,200
95	68.5	233.1	43,400
100	67.2	231.0	40,100
105	66.0	228.8	37,000
110	64.6	226.4	34,300
115	63.3	223.9	31,900
120	62.0	221.3	29,600
125	60.6	218.5	27,600
130	59.3	215.5	25,700
135	57.9	212.4	24,000
140	56.5	209.1	22,400
145	55.0	205.6	20,900
150	53.6	202.0	19,500
155	52.1	198.1	18,200
160	50.6	194.0	17,000
165	49.0	189.7	15,900
170	47.4	185.2	14,800
175	45.8	180.3	13,800
180	44.1	175.2	12,900
185	42.3	169.8	12,000
190	40.5	164.0	11,200
195	38.7	157.9	10,400
200	36.7	151.3	9,600
205	34.7	144.2	8,900
210	32.5	136.5	8,200
215	30.2	128.1	7,600
220	27.7	118.9	7,000
225	25.0	108.5	6,400
230	22.0	96.7	5,800
235	18.5	82.7	5,200

252.6 ft			
ft	°	ft	lb
38	82.8	258.3	101,300*
40	82.3	258.0	100,700*
42	81.9	257.7	100,200*
44	81.4	257.4	99,700*
46	80.9	257.1	99,200*
48	80.5	256.8	98,700*
50	80.0	256.4	98,200*
55	78.9	255.4	96,700
60	77.7	254.3	85,400
65	76.5	253.1	76,100
70	75.4	251.8	68,300
75	74.2	250.4	61,700
80	73.0	248.9	56,100
85	71.8	247.3	51,200
90	70.6	245.5	46,900
95	69.4	243.7	43,100
100	68.2	241.7	39,700
105	67.0	239.6	36,700
110	65.7	237.3	34,000
115	64.5	234.9	31,500
120	63.2	232.4	29,300
125	61.9	229.8	27,200
130	60.6	227.0	25,300
135	59.3	224.0	23,600
140	57.9	220.9	22,000
145	56.6	217.6	20,500
150	55.2	214.2	19,100
155	53.8	210.5	17,900
160	52.4	206.7	16,700
165	50.9	202.7	15,500
170	49.4	198.4	14,500
175	47.9	194.0	13,500
180	46.4	189.2	12,500
185	44.8	184.2	11,700
190	43.1	179.0	10,800
195	41.4	173.3	10,000
200	39.6	167.4	9,300
205	37.8	161.0	8,600
210	35.9	154.2	7,900
215	33.9	146.9	7,200
220	31.8	139.0	6,600
225	29.5	130.4	6,000
230	27.1	120.9	5,400
235	24.4	110.3	4,900
240	21.4	98.1	4,400

262.5 ft			
ft	°	ft	lb
40	82.6	268.0	91,000*
42	82.2	267.7	90,500*
44	81.7	267.4	90,000*
46	81.3	267.1	89,500*
48	80.8	266.8	89,100*
50	80.4	266.4	88,600*
55	79.3	265.5	87,500*
60	78.2	264.4	85,000
65	77.1	263.3	75,700
70	75.9	262.0	67,900
75	74.8	260.7	61,300
80	73.7	259.2	55,700
85	72.5	257.7	50,800
90	71.4	256.0	46,500
95	70.2	254.2	42,700
100	69.0	252.3	39,300
105	67.9	250.3	36,300
110	66.7	248.1	33,500
115	65.5	245.8	31,100
120	64.3	243.4	28,800
125	63.0	240.9	26,800
130	61.8	238.2	24,900
135	60.6	235.4	23,200
140	59.3	232.5	21,600
145	58.0	229.4	20,100
150	56.7	226.1	18,700
155	55.4	222.7	17,400
160	54.0	219.1	16,200
165	52.7	215.3	15,100
170	51.3	211.3	14,000
175	49.8	207.1	13,000
180	48.4	202.7	12,100
185	46.9	198.1	11,200
190	45.4	193.2	10,400
195	43.8	188.0	9,600
200	42.2	182.6	8,800
205	40.5	176.8	8,100
210	38.8	170.6	7,400
215	37.0	164.1	6,800
220	35.1	157.1	6,200
225	33.1	149.6	5,600
230	31.1	141.5	5,000
235	28.8	132.6	4,500

76



178,000 lb
+
70,500 lb



360°

272.3 ft			
ft	°	ft	lb
40	82.9	277.9	85,500*
42	82.5	277.6	85,100*
44	82.0	277.4	84,700*
46	81.6	277.0	84,300*
48	81.2	276.7	83,900*
50	80.8	276.4	83,500*
55	79.7	275.5	82,500*
60	78.6	274.5	81,500*
65	77.5	273.4	75,300
70	76.5	272.2	67,500
75	75.4	270.9	61,000
80	74.3	269.5	55,300
85	73.2	268.0	50,400
90	72.1	266.4	46,100
95	71.0	264.7	42,300
100	69.8	262.8	38,900
105	68.7	260.9	35,900
110	67.6	258.8	33,200
115	66.4	256.7	30,700
120	65.3	254.4	28,500
125	64.1	251.9	26,400
130	62.9	249.4	24,500
135	61.7	246.7	22,800
140	60.5	243.9	21,200
145	59.3	241.0	19,700
150	58.1	237.9	18,300
155	56.8	234.6	17,000
160	55.5	231.2	15,800
165	54.2	227.6	14,700
170	52.9	223.9	13,700
175	51.6	219.9	12,700
180	50.2	215.8	11,700
185	48.8	211.4	10,800
190	47.4	206.9	10,000
195	45.9	202.1	9,200
200	44.4	197.0	8,500
205	42.9	191.7	7,800
210	41.3	186.1	7,100
215	39.7	180.1	6,400
220	38.0	173.8	5,800
225	36.2	167.1	5,200
230	34.4	159.9	4,700
235	32.5	152.2	4,100

282.2 ft			
ft	°	ft	lb
42	82.7	287.6	78,400*
44	82.3	287.3	78,000*
46	81.9	287.0	77,600*
48	81.5	286.7	77,300*
50	81.1	286.4	76,900*
55	80.0	285.5	76,000*
60	79.0	284.5	75,000*
65	78.0	283.5	74,200*
70	76.9	282.3	67,300
75	75.9	281.1	60,700
80	74.8	279.7	55,000
85	73.8	278.3	50,100
90	72.7	276.7	45,800
95	71.6	275.1	42,000
100	70.6	273.3	38,600
105	69.5	271.5	35,600
110	68.4	269.5	32,800
115	67.3	267.4	30,400
120	66.2	265.2	28,100
125	65.1	262.9	26,100
130	63.9	260.5	24,200
135	62.8	257.9	22,500
140	61.6	255.2	20,900
145	60.5	252.4	19,400
150	59.3	249.4	18,000
155	58.1	246.3	16,700
160	56.9	243.1	15,500
165	55.7	239.7	14,400
170	54.4	236.2	13,300
175	53.2	232.4	12,300
180	51.9	228.5	11,400
185	50.6	224.4	10,500
190	49.2	220.2	9,700
195	47.9	215.7	8,900
200	46.5	211.0	8,100
205	45.0	206.0	7,400
210	43.6	200.8	6,700
215	42.1	195.3	6,100
220	40.5	189.5	5,500
225	38.9	183.4	4,900
230	37.2	176.9	4,300

292.0 ft			
ft	°	ft	lb
42	83.0	297.5	72,300*
44	82.6	297.2	71,900*
46	82.2	297.0	71,500*
48	81.8	296.7	71,200*
50	81.4	296.3	70,800*
55	80.4	295.5	70,000*
60	79.4	294.6	69,000*
65	78.4	293.5	68,200*
70	77.4	292.4	66,900
75	76.4	291.2	60,300
80	75.4	289.9	54,700
85	74.3	288.5	49,700
90	73.3	287.0	45,400
95	72.3	285.4	41,600
100	71.3	283.8	38,200
105	70.2	282.0	35,200
110	69.2	280.1	32,500
115	68.1	278.1	30,000
120	67.0	276.0	27,800
125	66.0	273.7	25,700
130	64.9	271.4	23,800
135	63.8	269.0	22,100
140	62.7	266.4	20,500
145	61.6	263.7	19,000
150	60.4	260.9	17,600
155	59.3	257.9	16,300
160	58.2	254.8	15,100
165	57.0	251.6	14,000
170	55.8	248.2	12,900
175	54.6	244.7	11,900
180	53.4	241.0	11,000
185	52.1	237.1	10,100
190	50.9	233.1	9,300
195	49.6	228.9	8,500
200	48.3	224.4	7,800
205	46.9	219.8	7,000
210	45.6	214.9	6,400
215	44.2	209.8	5,700
220	42.7	204.5	5,100
225	41.3	198.8	4,500
230	39.7	192.9	4,000