



model 16000

product guide

features

- 400 t (440 US t)
- 2 599 mton-m (18,800 ft-kips) Maximum Load Moment
- 96 m (315') Heavy-Lift Boom
- 132 m (432') Luffing Jib on Heavy-Lift Boom
- 372 kW (500 HP) engine
- EPIC® controls with CANbus technology
- 212 m/m (697 fpm) line speed standard
- 155 kN (35,000 lb.) line pull standard
- Designed to meet US weight and European width requirements
- Manitowoc Crane CARE comprehensive support

contents

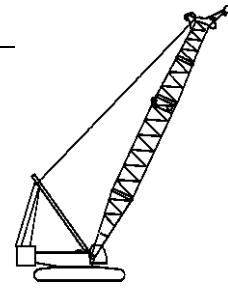
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Liftcrane Boom Capacities

Boom No. 58 HL
332,000 lb Crane Counterweight
120,000 lb Carbody Counterweight
360 Degree Rating



16000 SERIES 3



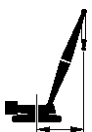
LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are denoted by an asterisk (*).

Standard upper boom point capacity for liftcrane service with single part whip line is 30,000 lb or 60,000 lb with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom 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. Refer to boom rigging **No. A10415**, Wire Rope Specification chart **No. 8674-A**, Counterweight Arrangement chart **No. 8682-A** and Wind Conditions chart **No. 8688-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. 8683-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 34 ft crawlers, 60 in. treads, 32 ft live mast, 26 part boom hoist reeving, boom support straps, 332,000 lb crane counterweight, two 30,000 lb and four 15,000 lb carbody counterweights.

Maximum Boom Length Lifted Unassisted

Over End of Blocked Crawlers	Over Side of Crawlers
Boom Length	Boom Length
(a) 315.0 ft	275.6 ft
Load block, hook and weight ball on ground at start. (a) Upper boom point cannot be attached on 315.0 ft boom.	

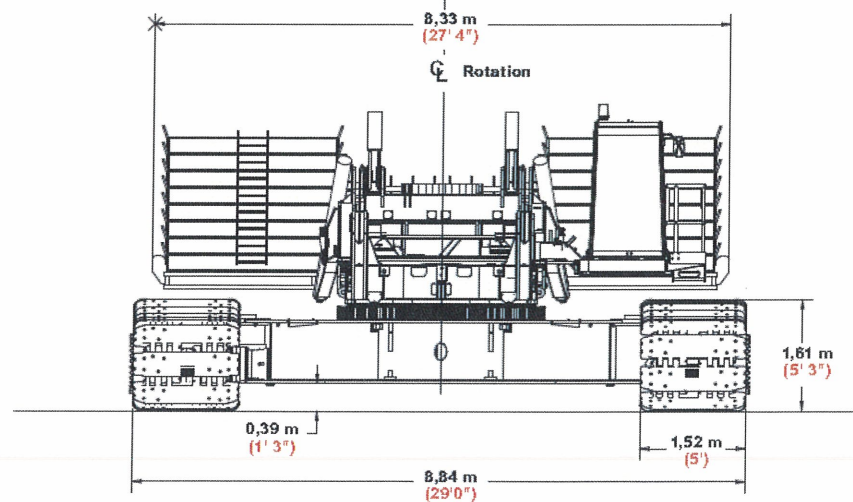
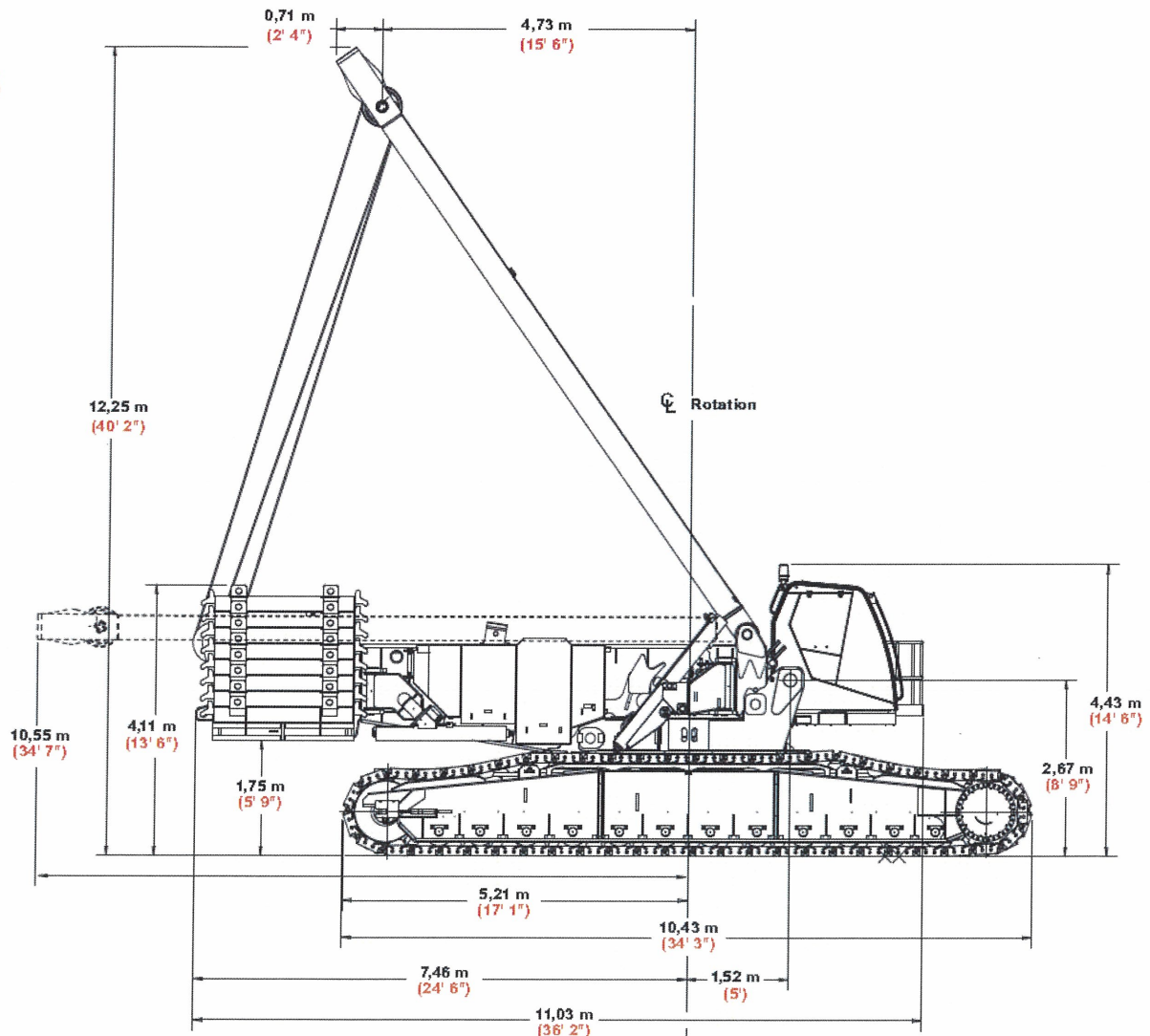
Third Line Deduct

Deduct 500 lb from boom capacities when boom is equipped for three line operation.

outline dimensions

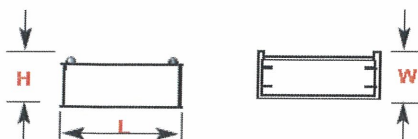
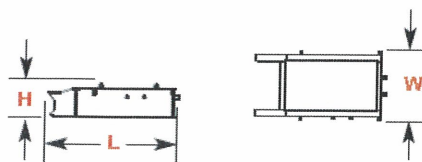
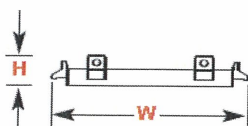
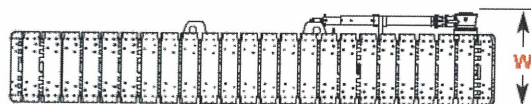
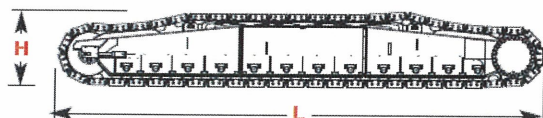
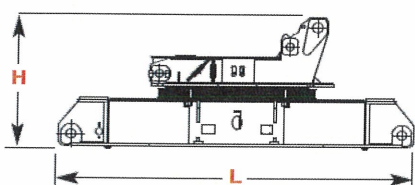
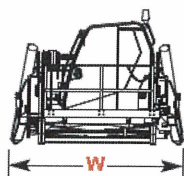
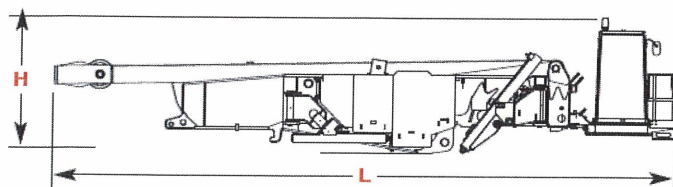
preliminary

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preliminary

outline dimensions



Rotating Bed Assembly

Length	13,25 m	43' 6"
Width	3,09 m	10' 2"
Height	2,87 m	9' 5"
Weight	38 663 kg	84,705 lb

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Carbody Assembly

Length	6,78 m	22' 3"
Width	3,00 m	9' 10"
Height	2,52 m	8' 3"
Weight	28 617 kg	63,090 lb

Note: Weight includes rotating bed adapter frame with bearing turntable, four axing drives, and carbody.

Crawlers

x 2

Length	10,43 m	34' 3"
Width	2,03 m	6' 8"
Height	1,61 m	5' 3"
Weight	32 477 kg	71,600 lb

Upper Counterweight

Series 1	x 10
Series 2	x 14
Series 3	x 16

Length	2,54 m	8' 4"
Width	2,61 m	8' 7"
Height	0,41 m	1' 4"
Weight	8 164 kg	18,000 lb

Carbody Center Counterweight

Series 2	x 2
Series 3	x 2

Length	3,45 m	11' 4"
Width	1,80 m	5' 11"
Height	0,89 m	2' 11"
Weight	13 607 kg	30,000 lb

Carbody Side Counterweight

Series 3	x 4
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Length	2,18 m	7' 2"
Width	0,86 m	2' 10"
Height	0,89 m	2' 11"
Weight	6 803 kg	15,000 lb

Option

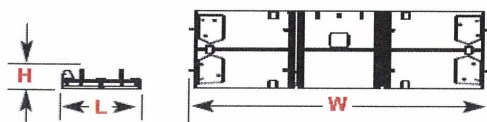
model 16000



outline dimensions

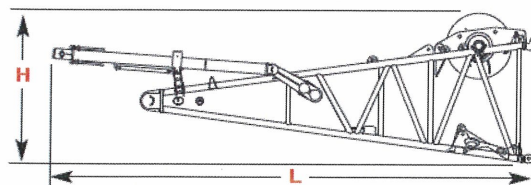
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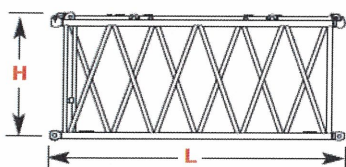
Upper Counterweight Tray x 1

Length	2,14 m	7' 0"
Width	8,33 m	27' 4"
Height	0,53 m	1' 9"
Weight	19 958 kg	44,000 lb



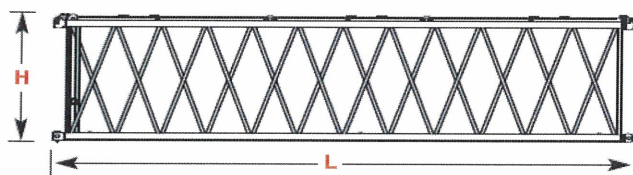
No. 58 Boom Butt, Drum 1, Wire Rope x 1

Length	10,13 m	33' 3"
Width	2,96 m	9' 9"
Height	3,10 m	10' 2"
Weight	20 275 kg	44,700 lb



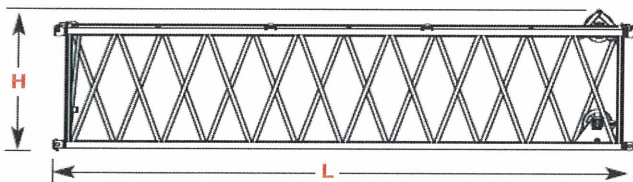
No. 58 Boom Insert 6,0 m (19.7') & Straps x 1

Length	6,19 m	20' 3"
Width	2,96 m	9' 9"
Height	2,67 m	8' 9"
Weight	2 540 kg	5,600 lb



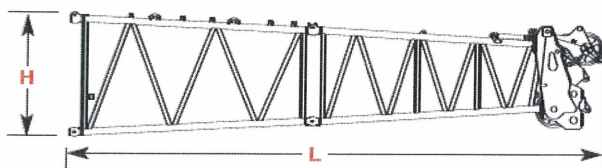
No. 58 Boom Insert 12,0 m (39' 5'') & Straps x 1

Length	12,19 m	40' 0"
Width	2,96 m	9' 9"
Height	2,65 m	8' 8"
Weight	4 354 kg	9,600 lb



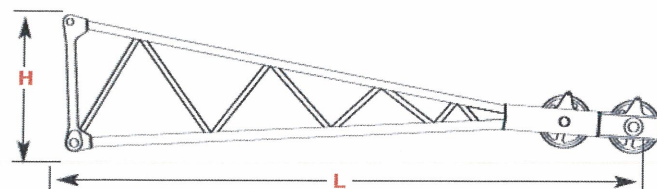
No. 58 Boom Insert - Heavy 12,0 m (39' 5'') with Sheave x 1

Length	12,19 m	40' 0"
Width	2,96 m	9' 9"
Height	2,67 m	8' 9"
Weight	5 534 kg	12,200 lb



No. 58 Boom Top 6,4 m (21') with 5,0 m (16' 5'') Transitional Insert & Straps x 1

Length	11,41 m	37' 5"
Width	2,96 m	9' 9"
Height	2,60 m	8' 6"
Weight	9 695 kg	21,374 lb



No. 58 Upper Boom Point 8,64 m (28' 4'') x 1

Length	8,64 m	28' 4"
Width	2,60 m	8' 6"
Height	1,96 m	6' 5"
Weight	1 977 kg	4,358 lb

Option

preliminary

transport data

Model 16000 Trailer Load Out Summary

No. 16000 Boom 96 m (315')

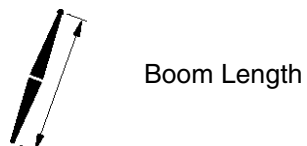
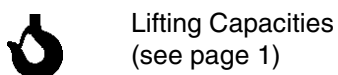
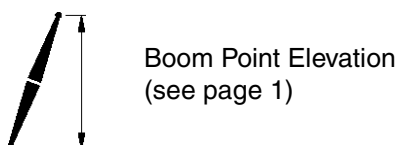
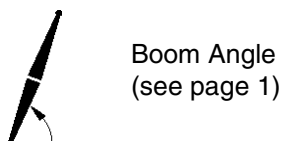
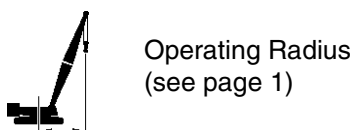
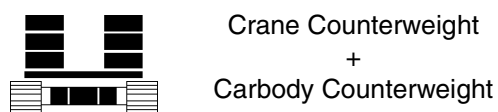
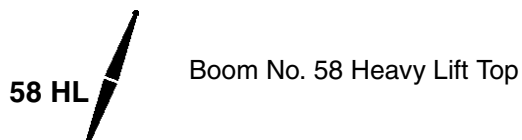
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Weight each Item	Quantity on Trailer Load #																		
Item	kg (lb)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Upperworks Module	39 440 (88,950)	1																	
Carbody and Adapter	27 962 (61,645)		1																
Crawler Assembly	32 886 (72,500)			1	1														
Counterweight Tray	19 958 (44,000)					1													
Upper Counterweight (Box)	8 185 (18,000)							2	2		1	1	1		1	2	2	2	2
Carbody Counterweight	13 607 (30,000)									1				1					
Carbody Counterweight	6 803 (15,000)										1	1	1		1				
8,0 m (26.2') No. 16000 Boom Butt	15 659 (34,523)						1												
5,0 m (16.4') No. 16000 Boom Top & Straps	3 916 (8,633)								1										
Lower Point	2 688 (5,925)						1												
5,0 m (16.4') No. 16000 Boom Trans. Insert & Straps	2 092 (4,611)							1											
6,0 m (19.7') No. 16000 Boom Insert & Straps	2 826 (6,230)															1			
12,0 m (39.4') with WRG Boom Insert & Straps	6 169 (13,600)									1									
12,0 m (39.4') (.44W) Boom Insert & Straps	4 899 (10,800)										1	1	1	1	1				
410 t (452 USt) Hook Block	7 031 (15,500)		1																
41 t (45 USt) Assembly Hook Block	1 179 (2600)							1											
No. 16000 Upper Boom Point	422 (930)							1											
Miscellaneous	454 (1000)																1		
Approximate Total Shipping Weight kg (lb)		39 440 (88,950)	34 992 (77,145)	32 886 (72,500)	32 856 (72,500)	19 958 (44,000)	16 347 (40,448)	20 022 (41,141)	20 245 (44,633)	19 777 (43,600)	19 867 (43,800)	19 867 (43,800)	19 867 (43,800)	19 958 (40,800)	20 258 (43,800)	19 155 (42,230)	16 783 (37,000)	16 329 (36,000)	16 329 (36,000)

model 16000



Explanation of Symbols

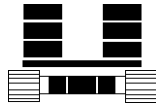


16000 S-3

ANSI B30.5



58 HL



332,000 lb
+
120,000 lb



360°

ft	o	ft	lb
98.4 ft			
21	82.9	106.0	881,900 *
22	82.3	105.8	845,400 *
24	81.1	105.4	778,200 *
26	79.9	105.0	720,500 *
28	78.7	104.6	670,500 *
30	77.5	104.1	625,700 *
32	76.3	103.5	581,700 *
34	75.1	102.9	543,200 *
36	73.9	102.3	495,400
38	72.7	101.6	454,300
40	71.4	100.8	419,100
45	68.3	98.8	349,900
50	65.1	96.4	299,100
55	61.7	93.6	260,100
60	58.3	90.5	229,300
65	54.7	86.9	204,300
70	50.9	82.8	183,600
75	46.9	78.1	166,200
80	42.6	72.6	151,400
85	37.9	66.2	138,500
90	32.6	58.5	127,200
95	26.2	48.8	117,200
100	17.6	34.8	108,200

ft	o	ft	lb
118.1 ft			
24	82.6	125.4	775,000 *
26	81.6	125.1	719,300 *
28	80.6	124.7	669,300 *
30	79.6	124.3	625,000 *
32	78.7	123.8	581,000 *
34	77.7	123.3	542,500 *
36	76.7	122.8	496,300
38	75.6	122.2	455,000
40	74.6	121.6	419,700
45	72.1	120.0	350,300
50	69.5	118.0	299,400
55	66.8	115.8	260,400
60	64.1	113.4	229,500
65	61.3	110.6	204,500
70	58.5	107.5	183,800
75	55.5	104.0	166,400
80	52.5	100.1	151,500
85	49.3	95.7	138,700
90	45.9	90.9	127,500
95	42.3	85.4	117,600
100	38.4	79.1	108,900
105	34.1	71.7	101,000
110	29.2	63.0	93,900
115	23.3	52.0	87,400
120	15.2	36.0	81,500

ft	o	ft	lb
137.8 ft			
26	82.8	145.0	625,700 *
28	82.0	144.7	619,400 *
30	81.1	144.3	614,000 *
32	80.3	143.9	580,800 *
34	79.5	143.5	542,300 *
36	78.6	143.1	497,200
38	77.7	142.6	455,800
40	76.9	142.1	420,500
45	74.7	140.7	351,000
50	72.5	139.1	299,900
55	70.3	137.2	260,800
60	68.1	135.2	229,900
65	65.8	132.9	204,900
70	63.5	130.3	184,200
75	61.1	127.5	166,700
80	58.6	124.4	151,900
85	56.1	121.0	139,100
90	53.5	117.3	127,900
95	50.8	113.2	118,000
100	48.0	108.7	109,300
105	45.1	103.7	101,500
110	42.0	98.1	94,500
115	38.7	91.8	88,100
120	35.1	84.8	82,300
125	31.1	76.6	77,000
130	26.5	66.9	72,100
135	21.0	54.6	67,600

16000 S-3

ANSI B30.5



ft	o	ft	lb
157.5 ft			
28	83.0	164.6	597,000 *
30	82.3	164.3	592,900 *
32	81.5	164.0	579,600 *
34	80.8	163.6	541,100 *
36	80.0	163.2	497,300
38	79.3	162.8	455,800
40	78.6	162.4	420,400
45	76.7	161.1	350,700
50	74.8	159.7	299,500
55	72.9	158.2	260,300
60	71.0	156.4	229,300
65	69.0	154.4	204,200
70	67.0	152.3	183,400
75	65.0	149.9	166,000
80	63.0	147.3	151,100
85	60.9	144.5	138,300
90	58.7	141.4	127,100
95	56.6	138.1	117,200
100	54.3	134.4	108,500
105	52.0	130.5	100,700
110	49.6	126.2	93,700
115	47.1	121.5	87,300
120	44.5	116.4	81,600
125	41.8	110.8	76,300
130	38.9	104.6	71,500
135	35.8	97.7	67,000
140	32.4	89.9	62,900
145	28.7	81.0	59,100
150	24.4	70.3	55,500
155	19.2	56.9	52,100

ft	o	ft	lb
177.2 ft			
32	82.5	183.9	483,000 *
34	81.8	183.6	467,100 *
36	81.2	183.2	451,800 *
38	80.5	182.9	437,300 *
40	79.9	182.5	420,400
45	78.2	181.4	350,600
50	76.5	180.2	299,300
55	74.9	178.8	260,000
60	73.2	177.2	229,000
65	71.5	175.5	203,900
70	69.7	173.6	183,100
75	68.0	171.6	165,600
80	66.2	169.3	150,700
85	64.4	166.9	137,800
90	62.6	164.3	126,600
95	60.7	161.4	116,700
100	58.8	158.4	108,000
105	56.9	155.1	100,200
110	54.9	151.5	93,200
115	52.9	147.7	86,900
120	50.8	143.6	81,100
125	48.6	139.2	75,900
130	46.4	134.4	71,100
135	44.1	129.2	66,600
140	41.6	123.6	62,500
145	39.1	117.4	58,800
150	36.3	110.6	55,200
155	33.4	103.1	52,000
160	30.2	94.7	48,900
165	26.7	84.9	46,000
170	22.6	73.4	43,200
175	17.6	58.8	40,600

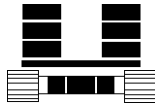
ft	o	ft	lb
196.9 ft			
34	82.6	203.5	435,600 *
36	82.1	203.2	422,500 *
38	81.5	202.9	409,700 *
40	80.9	202.5	397,400 *
45	79.4	201.6	350,000
50	77.9	200.4	298,600
55	76.4	199.2	259,200
60	74.9	197.8	228,100
65	73.4	196.3	202,900
70	71.8	194.6	182,000
75	70.3	192.8	164,500
80	68.7	190.8	149,600
85	67.1	188.7	136,700
90	65.5	186.4	125,500
95	63.9	183.9	115,600
100	62.3	181.2	106,800
105	60.6	178.4	99,000
110	58.9	175.3	92,000
115	57.2	172.1	85,600
120	55.4	168.6	79,900
125	53.6	164.9	74,600
130	51.7	160.9	69,800
135	49.8	156.6	65,400
140	47.8	152.1	61,300
145	45.8	147.2	57,500
150	43.7	142.0	54,000
155	41.5	136.3	50,800
160	39.2	130.2	47,700
165	36.8	123.5	44,800
170	34.2	116.2	42,200
175	31.4	108.1	39,600
180	28.4	99.0	37,200
185	25.0	88.6	35,000
190	21.1	76.2	32,800
195	16.3	60.4	30,700

16000 S-3

ANSI B30.5



58 HL



332,000 lb
+
120,000 lb



360°

ft	o	ft	lb
216.5 ft			
36	82.8	223.1	368,600 *
38	82.3	222.8	358,600 *
40	81.7	222.5	348,900 *
45	80.4	221.6	325,900 *
50	79.0	220.6	298,100
55	77.7	219.5	258,600
60	76.3	218.2	227,500
65	74.9	216.9	202,200
70	73.6	215.4	181,300
75	72.2	213.7	163,800
80	70.8	211.9	148,800
85	69.3	210.0	135,900
90	67.9	208.0	124,600
95	66.5	205.8	114,800
100	65.0	203.4	106,000
105	63.5	200.9	98,200
110	62.0	198.2	91,100
115	60.5	195.3	84,800
120	58.9	192.3	79,000
125	57.4	189.1	73,800
130	55.8	185.6	69,000
135	54.1	182.0	64,500
140	52.5	178.1	60,500
145	50.7	174.0	56,700
150	49.0	169.6	53,200
155	47.2	165.0	49,900
160	45.3	160.0	46,900
165	43.4	154.7	44,000
170	41.4	149.1	41,300
175	39.3	142.9	38,800
180	37.1	136.4	36,500
185	34.8	129.2	34,200
190	32.3	121.4	32,100
195	29.7	112.7	30,100
200	26.8	103.0	28,200
205	23.6	91.8	26,300
210	19.8	78.6	24,600
215	15.2	61.7	22,900

ft	o	ft	lb
236.2 ft			
38	82.9	242.7	330,500 *
40	82.4	242.4	321,300 *
45	81.2	241.6	299,500 *
50	80.0	240.7	279,400 *
55	78.7	239.7	257,700
60	77.5	238.5	226,400
65	76.2	237.3	201,100
70	75.0	235.9	180,200
75	73.7	234.4	162,600
80	72.4	232.8	147,600
85	71.1	231.1	134,600
90	69.8	229.2	123,300
95	68.5	227.2	113,400
100	67.2	225.1	104,600
105	65.9	222.8	96,800
110	64.5	220.4	89,800
115	63.2	217.9	83,400
120	61.8	215.1	77,600
125	60.4	212.3	72,400
130	59.0	209.2	67,500
135	57.5	206.0	63,100
140	56.1	202.7	59,000
145	54.6	199.1	55,300
150	53.1	195.3	51,700
155	51.5	191.3	48,500
160	49.9	187.1	45,400
165	48.3	182.6	42,600
170	46.6	177.9	39,900
175	44.9	172.8	37,400
180	43.1	167.5	35,000
185	41.3	161.8	32,800
190	39.4	155.7	30,700
195	37.4	149.2	28,700
200	35.3	142.1	26,800
205	33.1	134.5	25,000
210	30.7	126.2	23,300
215	28.2	117.0	21,600
220	25.4	106.7	20,000
225	22.3	94.9	18,500
230	18.7	80.8	17,100

ft	o	ft	lb
255.9 ft			
40	83.0	262.3	302,900 *
45	81.9	261.6	288,700 *
50	80.7	260.7	275,100 *
55	79.6	259.8	256,900
60	78.5	258.7	225,600
65	77.3	257.6	200,200
70	76.1	256.3	179,200
75	75.0	254.9	161,500
80	73.8	253.5	146,500
85	72.6	251.9	133,500
90	71.5	250.2	122,200
95	70.3	248.4	112,300
100	69.1	246.4	103,500
105	67.9	244.4	95,600
110	66.6	242.2	88,600
115	65.4	239.9	82,200
120	64.2	237.4	76,400
125	62.9	234.8	71,100
130	61.6	232.1	66,300
135	60.3	229.2	61,900
140	59.0	226.2	57,800
145	57.7	223.0	54,000
150	56.3	219.7	50,500
155	55.0	216.1	47,200
160	53.6	212.4	44,200
165	52.2	208.5	41,300
170	50.7	204.4	38,700
175	49.2	200.1	36,100
180	47.7	195.5	33,800
185	46.2	190.7	31,600
190	44.6	185.6	29,400
195	42.9	180.2	27,500
200	41.2	174.5	25,600
205	39.5	168.5	23,800
210	37.6	162.0	22,100
215	35.7	155.1	20,400
220	33.7	147.6	18,900
225	31.6	139.6	17,400
230	29.3	130.7	16,000
235	26.9	121.0	14,600
240	24.2	110.2	13,300
245	21.2	97.7	12,000
250	17.7	82.8	10,800

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ft	o	ft	lb
275.6 ft			
45	82.5	281.5	252,000 *
50	81.4	280.7	245,700 *
55	80.3	279.8	239,800 *
60	79.3	278.9	224,500
65	78.2	277.8	199,000
70	77.2	276.6	178,000
75	76.1	275.4	160,300
80	75.0	274.0	145,200
85	73.9	272.5	132,200
90	72.8	271.0	120,800
95	71.7	269.3	110,900
100	70.6	267.5	102,100
105	69.5	265.6	94,200
110	68.4	263.6	87,100
115	67.3	261.5	80,700
120	66.1	259.2	74,900
125	65.0	256.9	69,600
130	63.8	254.4	64,800
135	62.7	251.8	60,400
140	61.5	249.1	56,300
145	60.3	246.2	52,500
150	59.1	243.2	49,000
155	57.8	240.0	45,700
160	56.6	236.7	42,600
165	55.3	233.2	39,800
170	54.0	229.6	37,100
175	52.7	225.7	34,600
180	51.4	221.7	32,200
185	50.0	217.5	30,000
190	48.6	213.1	27,900
195	47.2	208.4	25,900
200	45.8	203.6	24,000
205	44.3	198.4	22,200
210	42.7	193.0	20,500
215	41.2	187.3	18,900
220	39.5	181.2	17,300
225	37.8	174.8	15,800
230	36.1	168.0	14,400
235	34.2	160.6	13,100
240	32.3	152.8	11,800
245	30.2	144.3	10,500
250	28.1	135.0	9,300
255	25.7	124.8	8,100 *

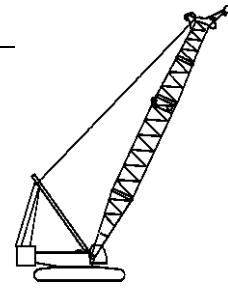
ft	o	ft	lb
295.3 ft			
45	83.0	301.4	211,600 *
50	82.0	300.6	206,200 *
55	81.0	299.8	201,100 *
60	80.0	298.9	196,300 *
65	79.0	297.9	191,900 *
70	78.0	296.8	176,900
75	77.0	295.7	159,200
80	76.0	294.4	144,100
85	75.0	293.0	131,000
90	74.0	291.6	119,700
95	73.0	290.0	109,700
100	72.0	288.4	100,900
105	71.0	286.6	93,000
110	69.9	284.8	85,900
115	68.9	282.8	79,500
120	67.8	280.8	73,700
125	66.8	278.6	68,400
130	65.7	276.3	63,600
135	64.6	273.9	59,100
140	63.5	271.4	55,000
145	62.4	268.8	51,200
150	61.3	266.0	47,700
155	60.2	263.1	44,500
160	59.1	260.1	41,400
165	57.9	257.0	38,500
170	56.8	253.7	35,900
175	55.6	250.2	33,400
180	54.4	246.6	31,000
185	53.2	242.9	28,800
190	52.0	238.9	26,700
195	50.7	234.8	24,700
200	49.4	230.5	22,800
205	48.1	226.0	21,000
210	46.8	221.3	19,300
215	45.4	216.4	17,700
220	44.0	211.2	16,100
225	42.6	205.8	14,600
230	41.1	200.0	13,200
235	39.6	194.0	11,900
240	38.0	187.6	10,600
245	36.4	180.8	9,400
250	34.7	173.6	8,200
255	32.9	165.9	7,000

ft	o	ft	lb
315.0 ft			
50	82.5	320.5	178,400 *
55	81.6	319.8	173,800 *
60	80.6	318.9	169,500 *
65	79.7	318.0	165,500 *
70	78.8	317.0	161,600 *
75	77.9	315.9	157,600 *
80	76.9	314.7	142,700
85	76.0	313.4	129,600
90	75.0	312.1	118,200
95	74.1	310.6	108,200
100	73.1	309.1	99,400
105	72.2	307.5	91,500
110	71.2	305.7	84,400
115	70.3	303.9	78,000
120	69.3	302.0	72,100
125	68.3	300.0	66,800
130	67.3	297.9	62,000
135	66.3	295.7	57,500
140	65.3	293.4	53,400
145	64.3	290.9	49,600
150	63.3	288.4	46,100
155	62.3	285.7	42,800
160	61.2	283.0	39,800
165	60.2	280.1	36,900
170	59.1	277.1	34,200
175	58.0	273.9	31,700
180	56.9	270.7	29,300
185	55.8	267.3	27,100
190	54.7	263.7	25,000
195	53.6	260.0	23,000
200	52.4	256.1	21,100
205	51.3	252.1	19,300
210	50.1	247.9	17,600
215	48.9	243.5	16,000
220	47.7	239.0	14,500
225	46.4	234.2	13,000
230	45.1	229.2	11,600
235	43.8	224.0	10,200
240	42.4	218.5	8,900
245	41.1	212.8	7,700



Liftcrane Boom Capacities

Boom No. 58 HL
332,000 lb Crane Counterweight
120,000 lb Carbody Counterweight
Rating Over End of Blocked Crawlers
No Travel - Limited Swing



16000 SERIES 3

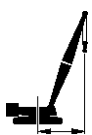


LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load over end of machine with crawlers blocked. Capacities based on structural competence are denoted by an asterisk (*).

Standard upper boom point capacity for liftcrane service with single part whip line is 30,000 lb or 60,000 lb with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom 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. Drive and idler tumblers must be properly blocked so that centerline of tumblers becomes tipping fulcrum. Swing is limited to that sector shown on Operating Range Diagram **No. 8707-A**. Refer to boom rigging **No. A10415**, Wire Rope Specification chart **No. 8674-A**, Counterweight Arrangement chart **No. 8682-A** and Wind Conditions chart **No. 8688-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.



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 34 ft crawlers, 60 in. treads, 32 ft live mast, 26 part boom hoist reeving, boom support straps, 332,000 lb crane counterweight, two 30,000 lb and four 15,000 lb carbody counterweights.

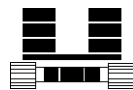
Maximum Boom Length Lifted Unassisted Over End of Blocked Crawlers
Boom Length
(a) 315.0 ft
Load block, hook and weight ball on ground at start. (a) Upper boom point cannot be attached on 315.0 ft boom.

Third Line Deduct
Deduct 500 lb from boom capacities when boom is equipped for three line operation.

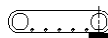
Explanation of Symbols



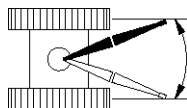
Boom No. 58 Heavy Lift Top



Crane Counterweight
+
Carbody Counterweight



Rating Over End of
Blocked Crawlers



Limited Swing Area



Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)



Lifting Capacities
(see page 1)



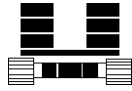
Boom Length

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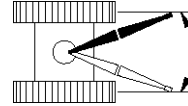
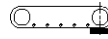
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58 HL



332,000 lb
+
120,000 lb



ft	o	ft	lb
98.4 ft			
21	82.9	106.0	881,900 *
22	82.3	105.8	845,400 *
24	81.1	105.4	778,200 *
26	79.9	105.0	720,500 *
28	78.7	104.6	670,500 *
30	77.5	104.1	625,700 *
32	76.3	103.5	581,700 *
34	75.1	102.9	543,200 *
36	73.9	102.3	509,200 *
38	72.7	101.6	479,100 *
40	71.4	100.8	452,100 *
45	68.3	98.8	395,600 *
50	65.1	96.4	350,800 *
55	61.7	93.6	311,300 *
60	58.3	90.5	275,200
65	54.7	86.9	244,400
70	50.9	82.8	219,100
75	46.9	78.1	198,000
80	42.6	72.6	180,100
85	37.9	66.2	164,800
90	32.6	58.5	151,400
95	26.2	48.8	139,600
100	17.6	34.8	129,000

ft	o	ft	lb
118.1 ft			
24	82.6	125.4	775,000 *
26	81.6	125.1	719,300 *
28	80.6	124.7	669,300 *
30	79.6	124.3	625,000 *
32	78.7	123.8	581,000 *
34	77.7	123.3	542,500 *
36	76.7	122.8	508,500 *
38	75.6	122.2	478,400 *
40	74.6	121.6	451,400 *
45	72.1	120.0	394,900 *
50	69.5	118.0	347,000 *
55	66.8	115.8	307,800 *
60	64.1	113.4	275,600
65	61.3	110.6	244,800
70	58.5	107.5	219,500
75	55.5	104.0	198,400
80	52.5	100.1	180,500
85	49.3	95.7	165,100
90	45.9	90.9	151,800
95	42.3	85.4	140,100
100	38.4	79.1	129,800
105	34.1	71.7	120,500
110	29.2	63.0	112,200
115	23.3	52.0	104,700
120	15.2	36.0	97,700

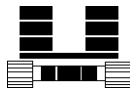
ft	o	ft	lb
137.8 ft			
26	82.8	145.0	625,700 *
28	82.0	144.7	619,400 *
30	81.1	144.3	614,000 *
32	80.3	143.9	580,800 *
34	79.5	143.5	542,300 *
36	78.6	143.1	508,300 *
38	77.7	142.6	478,200 *
40	76.9	142.1	451,200 *
45	74.7	140.7	392,200 *
50	72.5	139.1	343,900 *
55	70.3	137.2	305,100 *
60	68.1	135.2	273,400 *
65	65.8	132.9	245,300
70	63.5	130.3	220,000
75	61.1	127.5	198,800
80	58.6	124.4	181,000
85	56.1	121.0	165,600
90	53.5	117.3	152,300
95	50.8	113.2	140,600
100	48.0	108.7	130,300
105	45.1	103.7	121,100
110	42.0	98.1	112,900
115	38.7	91.8	105,400
120	35.1	84.8	98,700
125	31.1	76.6	92,500
130	26.5	66.9	86,900
135	21.0	54.6	81,600

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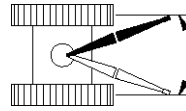
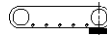
ANSI B30.5



58 HL



332,000 lb
+
120,000 lb



ft	o	ft	lb
157.5 ft			
28	83.0	164.6	597,000 *
30	82.3	164.3	592,900 *
32	81.5	164.0	579,600 *
34	80.8	163.6	541,100 *
36	80.0	163.2	507,100 *
38	79.3	162.8	476,900 *
40	78.6	162.4	449,700 *
45	76.7	161.1	388,000 *
50	74.8	159.7	339,900 *
55	72.9	158.2	301,400 *
60	71.0	156.4	269,900 *
65	69.0	154.4	243,600 *
70	67.0	152.3	219,400
75	65.0	149.9	198,200
80	63.0	147.3	180,300
85	60.9	144.5	164,900
90	58.7	141.4	151,600
95	56.6	138.1	139,900
100	54.3	134.4	129,600
105	52.0	130.5	120,400
110	49.6	126.2	112,100
115	47.1	121.5	104,700
120	44.5	116.4	98,000
125	41.8	110.8	91,900
130	38.9	104.6	86,300
135	35.8	97.7	81,100
140	32.4	89.9	76,400
145	28.7	81.0	71,900
150	24.4	70.3	67,800
155	19.2	56.9	64,000

ft	o	ft	lb
177.2 ft			
32	82.5	183.9	483,000 *
34	81.8	183.6	467,100 *
36	81.2	183.2	451,800 *
38	80.5	182.9	437,300 *
40	79.9	182.5	423,300 *
45	78.2	181.4	384,700 *
50	76.5	180.2	336,900 *
55	74.9	178.8	298,700 *
60	73.2	177.2	267,300 *
65	71.5	175.5	241,200 *
70	69.7	173.6	219,000 *
75	68.0	171.6	197,900
80	66.2	169.3	180,000
85	64.4	166.9	164,600
90	62.6	164.3	151,200
95	60.7	161.4	139,500
100	58.8	158.4	129,200
105	56.9	155.1	120,000
110	54.9	151.5	111,700
115	52.9	147.7	104,300
120	50.8	143.6	97,600
125	48.6	139.2	91,500
130	46.4	134.4	85,900
135	44.1	129.2	80,800
140	41.6	123.6	76,000
145	39.1	117.4	71,700
150	36.3	110.6	67,600
155	33.4	103.1	63,800
160	30.2	94.7	60,300
165	26.7	84.9	57,000
170	22.6	73.4	53,400 *
175	17.6	58.8	49,500 *

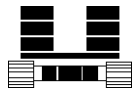
ft	o	ft	lb
196.9 ft			
34	82.6	203.5	435,600 *
36	82.1	203.2	422,500 *
38	81.5	202.9	409,700 *
40	80.9	202.5	397,400 *
45	79.4	201.6	367,100 *
50	77.9	200.4	333,400 *
55	76.4	199.2	295,300 *
60	74.9	197.8	264,100 *
65	73.4	196.3	238,000 *
70	71.8	194.6	216,000 *
75	70.3	192.8	197,000
80	68.7	190.8	179,000
85	67.1	188.7	163,600
90	65.5	186.4	150,200
95	63.9	183.9	138,400
100	62.3	181.2	128,100
105	60.6	178.4	118,900
110	58.9	175.3	110,600
115	57.2	172.1	103,200
120	55.4	168.6	96,500
125	53.6	164.9	90,300
130	51.7	160.9	84,700
135	49.8	156.6	79,600
140	47.8	152.1	74,900
145	45.8	147.2	70,500
150	43.7	142.0	66,500
155	41.5	136.3	62,700
160	39.2	130.2	59,200
165	36.8	123.5	55,900
170	34.2	116.2	52,700 *
175	31.4	108.1	49,300 *
180	28.4	99.0	46,100 *
185	25.0	88.6	42,900 *
190	21.1	76.2	39,800 *
195	16.3	60.4	36,700 *

16000 S-3

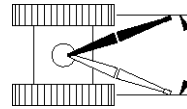
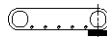
ANSI B30.5



58 HL



332,000 lb
+
120,000 lb



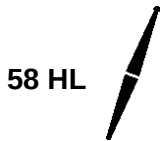
ft	o	ft	lb
216.5 ft			
36	82.8	223.1	368,600 *
38	82.3	222.8	358,600 *
40	81.7	222.5	348,900 *
45	80.4	221.6	325,900 *
50	79.0	220.6	304,800 *
55	77.7	219.5	285,300 *
60	76.3	218.2	261,500 *
65	74.9	216.9	235,600 *
70	73.6	215.4	213,600 *
75	72.2	213.7	194,800 *
80	70.8	211.9	178,300 *
85	69.3	210.0	162,800 *
90	67.9	208.0	149,400 *
95	66.5	205.8	137,700 *
100	65.0	203.4	127,300 *
105	63.5	200.9	118,100 *
110	62.0	198.2	109,800 *
115	60.5	195.3	102,400 *
120	58.9	192.3	95,600 *
125	57.4	189.1	89,500 *
130	55.8	185.6	83,900 *
135	54.1	182.0	78,800 *
140	52.5	178.1	74,100 *
145	50.7	174.0	69,700 *
150	49.0	169.6	65,600 *
155	47.2	165.0	61,900 *
160	45.3	160.0	58,400 *
165	43.4	154.7	55,100 *
170	41.4	149.1	51,800 *
175	39.3	142.9	48,500 *
180	37.1	136.4	45,400 *
185	34.8	129.2	42,500 *
190	32.3	121.4	39,600 *
195	29.7	112.7	36,900 *
200	26.8	103.0	34,300 *
205	23.6	91.8	31,700 *
210	19.8	78.6	29,100 *
215	15.2	61.7	26,500 *

ft	o	ft	lb
236.2 ft			
38	82.9	242.7	330,500 *
40	82.4	242.4	321,300 *
45	81.2	241.6	299,500 *
50	80.0	240.7	279,400 *
55	78.7	239.7	260,800 *
60	77.5	238.5	243,600 *
65	76.2	237.3	227,800 *
70	75.0	235.9	210,700 *
75	73.7	234.4	191,900 *
80	72.4	232.8	175,600 *
85	71.1	231.1	161,300 *
90	69.8	229.2	148,200 *
95	68.5	227.2	136,400 *
100	67.2	225.1	126,000 *
105	65.9	222.8	116,800 *
110	64.5	220.4	108,500 *
115	63.2	217.9	101,100 *
120	61.8	215.1	94,300 *
125	60.4	212.3	88,200 *
130	59.0	209.2	82,600 *
135	57.5	206.0	77,400 *
140	56.1	202.7	72,700 *
145	54.6	199.1	68,300 *
150	53.1	195.3	64,300 *
155	51.5	191.3	60,500 *
160	49.9	187.1	56,700 *
165	48.3	182.6	53,100 *
170	46.6	177.9	49,700 *
175	44.9	172.8	46,600 *
180	43.1	167.5	43,500 *
185	41.3	161.8	40,700 *
190	39.4	155.7	37,900 *
195	37.4	149.2	35,300 *
200	35.3	142.1	32,800 *
205	33.1	134.5	30,400 *
210	30.7	126.2	28,100 *
215	28.2	117.0	25,800 *
220	25.4	106.7	23,700 *
225	22.3	94.9	21,500 *
230	18.7	80.8	19,400 *

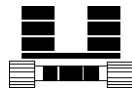
ft	o	ft	lb
255.9 ft			
40	83.0	262.3	302,900 *
45	81.9	261.6	288,700 *
50	80.7	260.7	275,100 *
55	79.6	259.8	262,200 *
60	78.5	258.7	250,000 *
65	77.3	257.6	230,800 *
70	76.1	256.3	208,800 *
75	75.0	254.9	190,000 *
80	73.8	253.5	173,700 *
85	72.6	251.9	159,400 *
90	71.5	250.2	146,800 *
95	70.3	248.4	135,400 *
100	69.1	246.4	124,900 *
105	67.9	244.4	115,700 *
110	66.6	242.2	107,400 *
115	65.4	239.9	99,900 *
120	64.2	237.4	93,100 *
125	62.9	234.8	87,000 *
130	61.6	232.1	81,400 *
135	60.3	229.2	76,200 *
140	59.0	226.2	71,500 *
145	57.7	223.0	67,000 *
150	56.3	219.7	62,700 *
155	55.0	216.1	58,700 *
160	53.6	212.4	54,900 *
165	52.2	208.5	51,300 *
170	50.7	204.4	48,000 *
175	49.2	200.1	44,800 *
180	47.7	195.5	41,800 *
185	46.2	190.7	39,000 *
190	44.6	185.6	36,300 *
195	42.9	180.2	33,700 *
200	41.2	174.5	31,300 *
205	39.5	168.5	28,900 *
210	37.6	162.0	26,700 *
215	35.7	155.1	24,500 *
220	33.7	147.6	22,400 *
225	31.6	139.6	20,400 *
230	29.3	130.7	18,500 *
235	26.9	121.0	16,600 *
240	24.2	110.2	14,700 *
245	21.2	97.7	12,900 *
250	17.7	82.8	11,100 *

16000 S-3

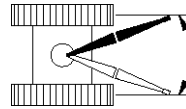
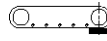
ANSI B30.5



58 HL



332,000 lb
+
120,000 lb

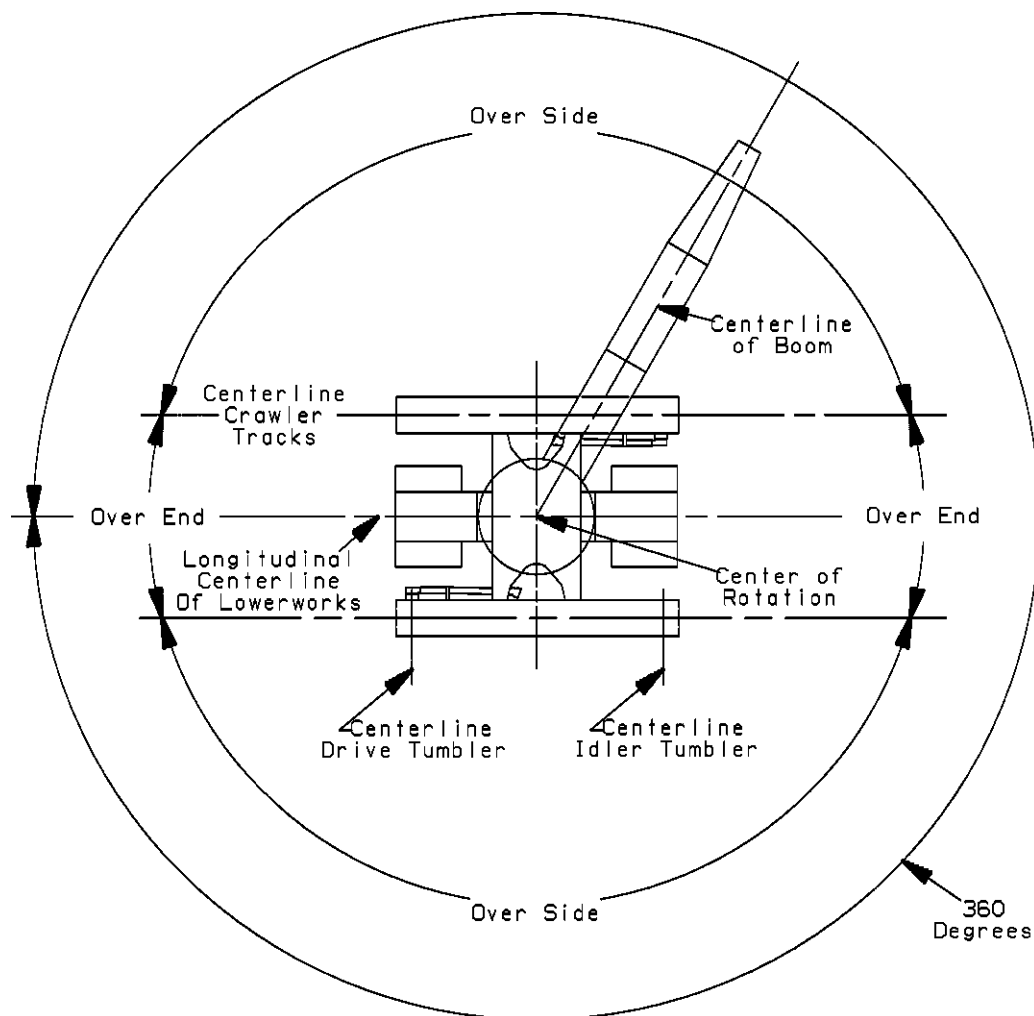


ft	o	ft	lb
275.6 ft			
45	82.5	281.5	252,000 *
50	81.4	280.7	245,700 *
55	80.3	279.8	239,800 *
60	79.3	278.9	229,600 *
65	78.2	277.8	218,700 *
70	77.2	276.6	205,700 *
75	76.1	275.4	187,200 *
80	75.0	274.0	170,900 *
85	73.9	272.5	156,600 *
90	72.8	271.0	144,000 *
95	71.7	269.3	132,800 *
100	70.6	267.5	122,800 *
105	69.5	265.6	113,800 *
110	68.4	263.6	105,600 *
115	67.3	261.5	98,100 *
120	66.1	259.2	91,300 *
125	65.0	256.9	85,100 *
130	63.8	254.4	79,300 *
135	62.7	251.8	74,000 *
140	61.5	249.1	69,100 *
145	60.3	246.2	64,500 *
150	59.1	243.2	60,200 *
155	57.8	240.0	56,200 *
160	56.6	236.7	52,500 *
165	55.3	233.2	48,900 *
170	54.0	229.6	45,600 *
175	52.7	225.7	42,500 *
180	51.4	221.7	39,500 *
185	50.0	217.5	36,700 *
190	48.6	213.1	34,100 *
195	47.2	208.4	31,500 *
200	45.8	203.6	29,100 *
205	44.3	198.4	26,800 *
210	42.7	193.0	24,600 *
215	41.2	187.3	22,500 *
220	39.5	181.2	20,500 *
225	37.8	174.8	18,500 *
230	36.1	168.0	16,700 *
235	34.2	160.6	14,900 *
240	32.3	152.8	13,100 *
245	30.2	144.3	11,400 *
250	28.1	135.0	9,800 *
255	25.7	124.8	8,100 *

ft	o	ft	lb
295.3 ft			
45	83.0	301.4	211,600 *
50	82.0	300.6	206,200 *
55	81.0	299.8	201,100 *
60	80.0	298.9	196,300 *
65	79.0	297.9	191,900 *
70	78.0	296.8	187,300 *
75	77.0	295.7	182,800 *
80	76.0	294.4	169,100 *
85	75.0	293.0	154,900 *
90	74.0	291.6	142,300 *
95	73.0	290.0	131,100 *
100	72.0	288.4	121,100 *
105	71.0	286.6	112,000 *
110	69.9	284.8	103,900 *
115	68.9	282.8	96,400 *
120	67.8	280.8	89,600 *
125	66.8	278.6	83,400 *
130	65.7	276.3	77,600 *
135	64.6	273.9	72,300 *
140	63.5	271.4	67,400 *
145	62.4	268.8	62,800 *
150	61.3	266.0	58,500 *
155	60.2	263.1	54,500 *
160	59.1	260.1	50,800 *
165	57.9	257.0	47,300 *
170	56.8	253.7	44,000 *
175	55.6	250.2	40,900 *
180	54.4	246.6	37,900 *
185	53.2	242.9	35,100 *
190	52.0	238.9	32,500 *
195	50.7	234.8	30,000 *
200	49.4	230.5	27,600 *
205	48.1	226.0	25,300 *
210	46.8	221.3	23,100 *
215	45.4	216.4	21,000 *
220	44.0	211.2	19,100 *
225	42.6	205.8	17,100 *
230	41.1	200.0	15,300 *
235	39.6	194.0	13,500 *
240	38.0	187.6	11,800 *
245	36.4	180.8	10,200 *
250	34.7	173.6	8,600 *
255	32.9	165.9	7,100 *

ft	o	ft	lb
315.0 ft			
50	82.5	320.5	178,400 *
55	81.6	319.8	173,800 *
60	80.6	318.9	169,500 *
65	79.7	318.0	165,500 *
70	78.8	317.0	161,600 *
75	77.9	315.9	157,600 *
80	76.9	314.7	153,800 *
85	76.0	313.4	150,200 *
90	75.0	312.1	139,700 *
95	74.1	310.6	128,500 *
100	73.1	309.1	118,500 *
105	72.2	307.5	109,500 *
110	71.2	305.7	101,300 *
115	70.3	303.9	93,900 *
120	69.3	302.0	87,100 *
125	68.3	300.0	80,900 *
130	67.3	297.9	75,100 *
135	66.3	295.7	69,800 *
140	65.3	293.4	64,900 *
145	64.3	290.9	60,300 *
150	63.3	288.4	56,100 *
155	62.3	285.7	52,100 *
160	61.2	283.0	48,400 *
165	60.2	280.1	44,900 *
170	59.1	277.1	41,600 *
175	58.0	273.9	38,500 *
180	56.9	270.7	35,500 *
185	55.8	267.3	32,800 *
190	54.7	263.7	30,100 *
195	53.6	260.0	27,600 *
200	52.4	256.1	25,300 *
205	51.3	252.1	23,000 *
210	50.1	247.9	20,800 *
215	48.9	243.5	18,800 *
220	47.7	239.0	16,800 *
225	46.4	234.2	14,900 *
230	45.1	229.2	13,100 *
235	43.8	224.0	11,400 *
240	42.4	218.5	9,700 *
245	41.1	212.8	8,100 *

Operating Range Diagram



These lines determine limiting position of any load for operation within working areas indicated.

Approved working areas for crawler machines are shown in above diagram.

Lifting is approved only in those areas for which ratings are shown on capacity charts.

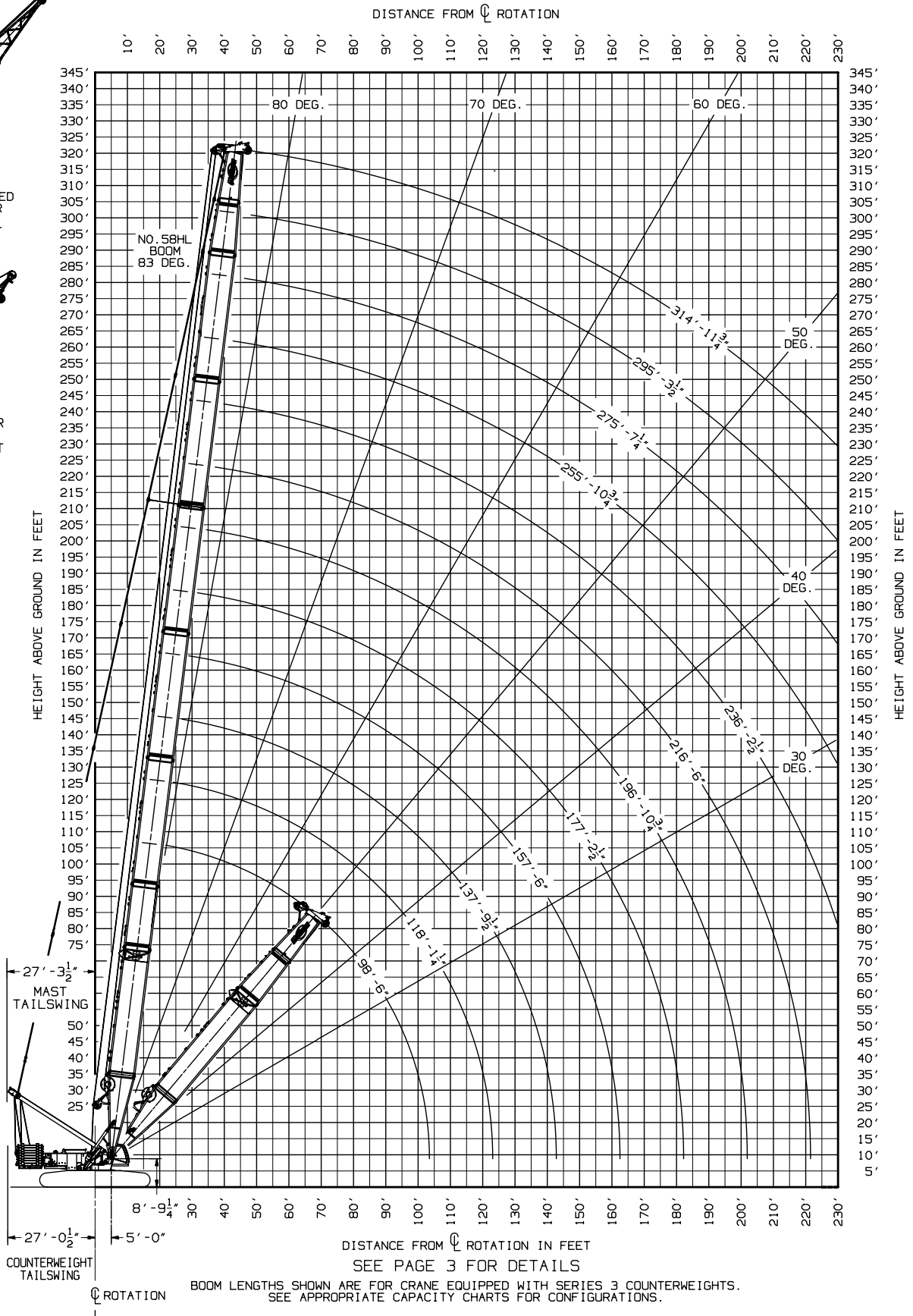
MANITOWOC CRANES, INC.



EXTENDED
UPPER
BOOM
POINT



UPPER
BOOM
POINT



RANGE DIAGRAM - 16000 (#58HL BOOM)

A14371-1
07-21-05

S/N: 16001024

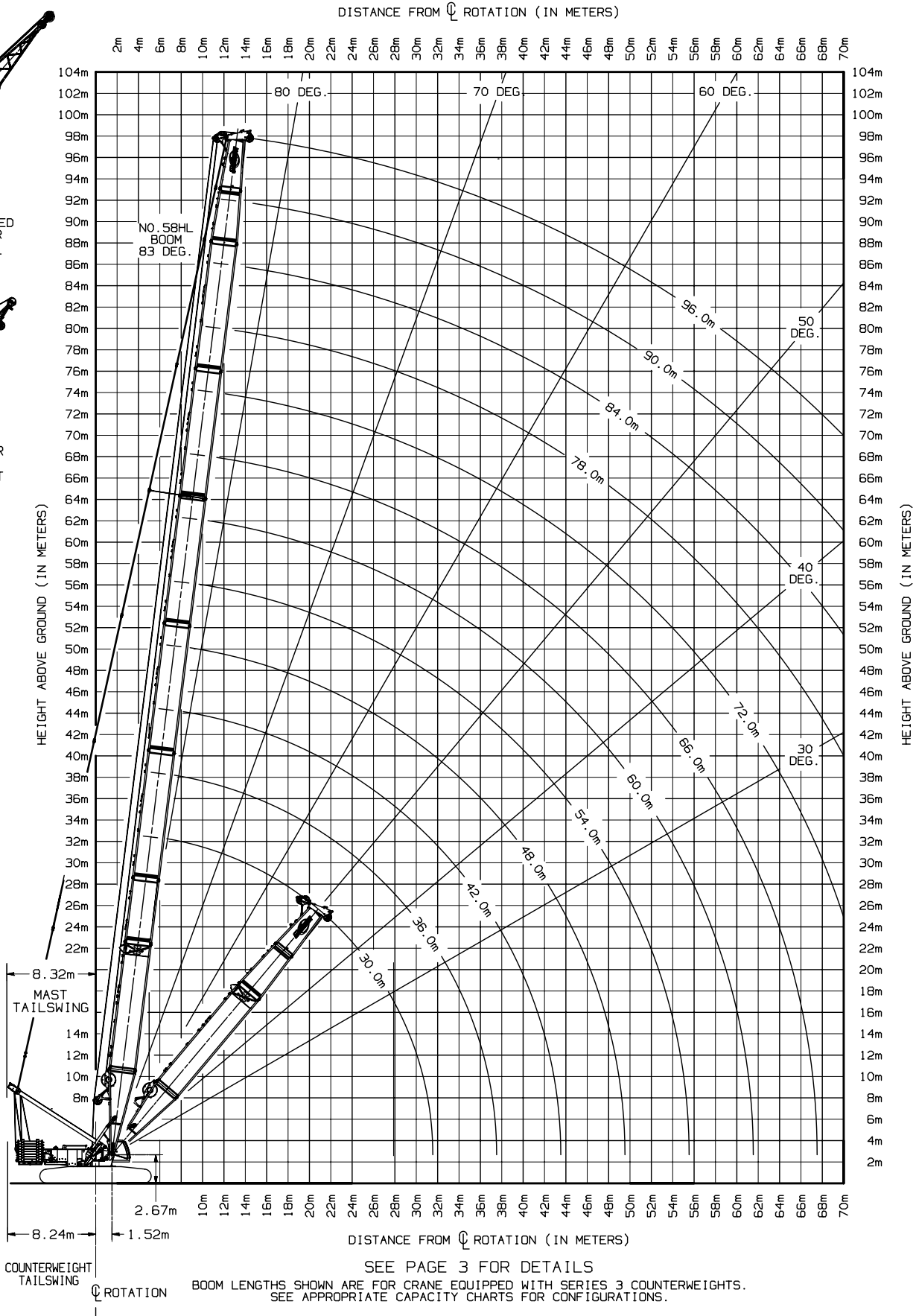
MANITOWOC CRANES, INC.



EXTENDED
UPPER
BOOM
POINT



UPPER
BOOM
POINT



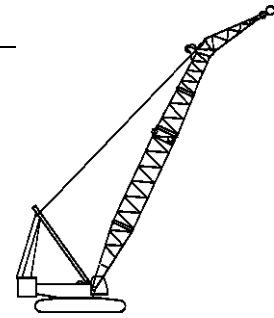


Liftcrane Boom

Extended Upper Point Capacities

Boom No. 58 HL with 23 ft Extended
Upper Boom Point
332,000 lb Crane Counterweight
120,000 lb Carbody Counterweight
360 Degree Rating

Maximum Operating
Wind Speeds
25 MPH



16000 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 (*).

Upper boom point (upper sheave) capacity for liftcrane service with single part whip line is 30,000 lb. In all cases, upper boom point capacities cannot exceed those listed for extended upper boom point (lower sheave) capacity.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath upper boom point sheaves, is considered part of extended upper boom point 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. Refer to boom rigging **No. A10415**, Wire Rope Specification chart **No. 8674-B** and Counterweight Arrangement chart **No. 8682-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.



WIND CONDITIONS: Machine may be operated in winds stated in Maximum Operating Wind Speed table provided crane operator judgment is used to allow for wind effect on lifted load and other considerations noted on capacity chart are followed. Wind will have a considerable effect on load with a large "sail area" and must be compensated for accordingly by reducing load ratings, reducing operating speeds or by a combination of both. Wind speed to be measured at or above boom point elevation. **Operation is not permitted when wind is above conditions stated in Maximum Operating Wind Speed table.** Park crane (upper inline with crawlers) with load block on ground or secured and position boom at 70 degrees. Lower boom onto blocking at ground level when wind is above 50 mph.

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. 8683-B**.



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.



EXTENDED UPPER BOOM POINT

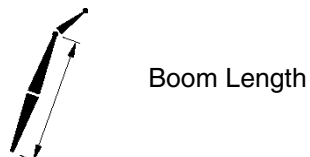
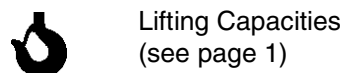
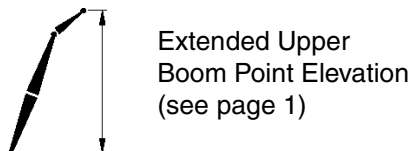
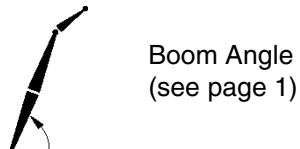
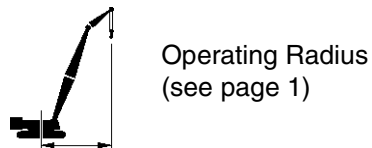
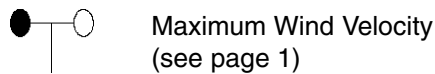
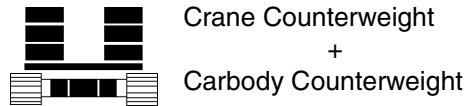
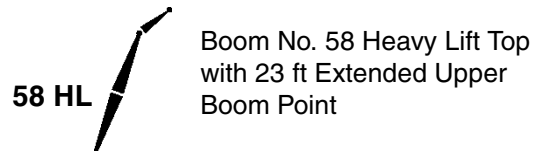
ELEVATION: Extended upper boom point elevation is vertical distance from ground level to centerline of extended upper boom point (lower sheave) shaft.

MACHINE EQUIPMENT: Machine equipped with 34 ft crawlers, 60 in. treads, 32 ft live mast, 26 part boom hoist reeving, boom support straps, 332,000 lb crane counterweight, two 30,000 lb and four 15,000 lb carbody counterweights.

Maximum Boom Length Lifted Unassisted	
Over End of Blocked Crawlers	Over Side of Crawlers
Boom Length	Boom Length
295.3 ft	275.6 ft
Load block, hook and weight ball on ground at start.	

Lower boom point must be removed when extended upper boom point is attached.

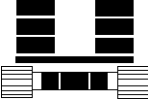
Explanation of Symbols



16000 S-3

ANSI B30.5



58 HL   332,000 lb
+
120,000 lb  360°  25 MPH

ft	°	ft	lb
216.5 ft			
50	82.5	243.4	215,200 *
55	81.2	242.3	215,200 *
60	80.0	241.2	215,200 *
65	78.8	240.0	212,300
70	77.5	238.6	190,800
75	76.3	237.1	172,600
80	75.0	235.6	157,200
85	73.8	233.8	143,800
90	72.5	232.0	132,200
95	71.2	230.0	122,000
100	69.9	227.9	112,900
105	68.6	225.7	104,900
110	67.3	223.3	97,600
115	65.9	220.8	91,000
120	64.5	218.1	85,100
125	63.2	215.3	79,600
130	61.8	212.3	74,700
135	60.4	209.2	70,100
140	58.9	205.8	65,900
145	57.4	202.3	62,000
150	56.0	198.6	58,300
155	54.4	194.7	55,000
160	52.9	190.5	51,800
165	51.3	186.1	48,900
170	49.6	181.5	46,100
175	48.0	176.6	43,500
180	46.2	171.4	41,000
185	44.4	165.8	38,700
190	42.6	159.9	36,500
195	40.6	153.5	34,400
200	38.6	146.7	32,400
205	36.5	139.4	30,500

ft	°	ft	lb
236.2 ft			
55	81.9	262.4	215,200 *
60	80.8	261.4	215,200 *
65	79.7	260.2	211,500
70	78.5	259.0	189,900
75	77.4	257.6	171,700
80	76.2	256.2	156,100
85	75.0	254.6	142,800
90	73.9	252.9	131,100
95	72.7	251.1	120,800
100	71.5	249.2	111,700
105	70.3	247.2	103,600
110	69.1	245.0	96,300
115	67.9	242.7	89,700
120	66.7	240.3	83,800
125	65.4	237.7	78,300
130	64.2	235.1	73,300
135	62.9	232.2	68,700
140	61.6	229.2	64,500
145	60.3	226.1	60,600
150	59.0	222.8	57,000
155	57.6	219.3	53,600
160	56.2	215.7	50,400
165	54.8	211.8	47,500
170	53.4	207.8	44,700
175	52.0	203.5	42,100
180	50.5	199.1	39,600
185	48.9	194.3	37,300
190	47.4	189.3	35,100
195	45.8	184.1	33,000
200	44.1	178.5	31,100
205	42.4	172.6	29,200
210	40.6	166.3	27,400
215	38.8	159.5	25,700
220	36.8	152.3	24,100

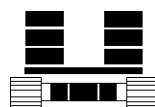
ft	°	ft	lb
255.9 ft			
55	82.5	282.4	201,500 *
60	81.5	281.5	196,800 *
65	80.4	280.4	192,600 *
70	79.3	279.2	188,500 *
75	78.3	278.0	170,800
80	77.2	276.6	155,200
85	76.1	275.2	141,800
90	75.1	273.6	130,100
95	74.0	272.0	119,800
100	72.9	270.2	110,700
105	71.8	268.4	102,500
110	70.7	266.4	95,200
115	69.6	264.3	88,600
120	68.4	262.1	82,600
125	67.3	259.7	77,200
130	66.2	257.3	72,200
135	65.0	254.7	67,600
140	63.8	252.0	63,300
145	62.6	249.1	59,400
150	61.4	246.2	55,700
155	60.2	243.0	52,400
160	59.0	239.8	49,200
165	57.7	236.3	46,200
170	56.5	232.7	43,500
175	55.2	229.0	40,800
180	53.9	225.0	38,400
185	52.5	220.9	36,100
190	51.2	216.5	33,900
195	49.8	211.9	31,800
200	48.4	207.2	29,800
205	46.9	202.1	28,000
210	45.4	196.8	26,200
215	43.8	191.2	24,500
220	42.2	185.3	22,900
225	40.6	179.0	21,300
230	38.9	172.4	19,800
235	37.1	165.2	18,400
240	35.2	157.6	17,100

16000 S-3

ANSI B30.5



58 HL



332,000 lb

+

120,000 lb



360°



25 MPH

ft	°	ft	lb
275.6 ft			
55	83.0	302.4	193,700 *
60	82.0	301.5	190,100 *
65	81.0	300.5	186,600 *
70	80.1	299.4	183,500 *
75	79.1	298.3	169,800
80	78.1	297.0	154,200
85	77.1	295.7	140,700
90	76.1	294.2	128,900
95	75.1	292.7	118,600
100	74.1	291.0	109,400
105	73.1	289.3	101,300
110	72.0	287.5	93,900
115	71.0	285.5	87,300
120	70.0	283.5	81,300
125	68.9	281.4	75,800
130	67.9	279.1	70,800
135	66.8	276.7	66,200
140	65.7	274.3	61,900
145	64.6	271.7	58,000
150	63.5	268.9	54,300
155	62.4	266.1	50,900
160	61.3	263.1	47,700
165	60.2	260.0	44,800
170	59.0	256.7	42,000
175	57.9	253.3	39,400
180	56.7	249.8	36,900
185	55.5	246.1	34,600
190	54.3	242.2	32,400
195	53.0	238.1	30,300
200	51.8	233.9	28,400
205	50.5	229.5	26,500
210	49.2	224.8	24,700
215	47.8	220.0	23,000
220	46.5	214.9	21,400
225	45.1	209.5	19,800
230	43.6	203.9	18,400
235	42.1	198.0	17,000
240	40.6	191.7	15,600
245	39.0	185.1	14,300
250	37.3	178.1	13,000
255	35.6	170.7	11,800

ft	°	ft	lb
295.3 ft			
60	82.5	321.5	168,600 *
65	81.6	320.5	165,000 *
70	80.7	319.5	161,500 *
75	79.8	318.5	158,200 *
80	78.8	317.3	153,200
85	77.9	316.0	139,700
90	77.0	314.7	127,900
95	76.0	313.2	117,500
100	75.1	311.7	108,300
105	74.1	310.1	100,200
110	73.2	308.4	92,800
115	72.2	306.6	86,200
120	71.3	304.7	80,100
125	70.3	302.7	74,600
130	69.3	300.6	69,600
135	68.3	298.4	65,000
140	67.3	296.1	60,700
145	66.3	293.7	56,800
150	65.3	291.2	53,100
155	64.3	288.6	49,700
160	63.3	285.9	46,500
165	62.2	283.0	43,600
170	61.2	280.0	40,800
175	60.1	276.9	38,200
180	59.1	273.7	35,700
185	58.0	270.3	33,400
190	56.9	266.8	31,200
195	55.7	263.1	29,100
200	54.6	259.3	27,100
205	53.5	255.4	25,300
210	52.3	251.2	23,500
215	51.1	246.9	21,800
220	49.9	242.4	20,200
225	48.6	237.7	18,700
230	47.4	232.8	17,200
235	46.1	227.6	15,800
240	44.8	222.3	14,400
245	43.4	216.6	13,100
250	42.0	210.7	11,900
255	40.6	204.5	10,700
260	39.1	197.9	9,500
265	37.5	191.0	8,400
270	35.9	183.6	7,400