



Liftcrane Boom

Extended Upper Point Capacities

Boom No. 58 HL with 23.0 ft Extended
Upper Boom Point
332,000 lb Crane Counterweight
120,000 lb Carbody Counterweight
Rating Over End of Blocked Crawlers
No Travel - Limited Swing

16000 SERIES 3

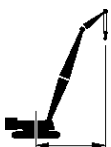


LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load over end of machine with crawlers blocked. Capacities based on structural competence are denoted by an asterisk (*).

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. 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-B**, 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.



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

Boom Length
295.3 ft
Load block, hook and weight ball on ground at start.

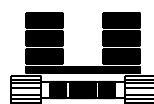
Boom Catwalks Deduct

Deduct 600 lb from capacities when boom catwalks are attached.

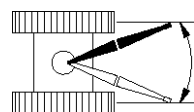
Lower boom point must be removed when extended upper boom point is attached.

Explanation of Symbols

58 HL  Boom No. 58 Heavy Lift Top
with 23.0 ft Extended Upper
Boom Point

 Crane Counterweight
+
Carbody Counterweight

 Rating Over End of
Blocked Crawlers

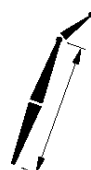
 Limited Swing Area

 Operating Radius
(see page 1)

 Boom Angle
(see page 1)

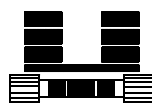
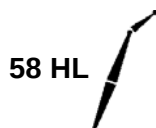
 Extended Upper
Boom Point Elevation
(see page 1)

 Lifting Capacities
(see page 1)

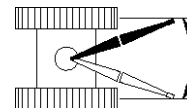
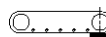
 Boom Length

16000 S-3

ANSI B30.5



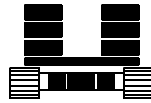
332,000 lb
+
120,000 lb



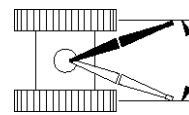
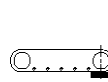
ft	°	ft	lb
216.5 ft			
50	82.5	243.4	215,200 *
55	81.2	242.3	215,200 *
60	80.0	241.2	215,200 *
65	78.8	240.0	215,200 *
70	77.5	238.6	215,200 *
75	76.3	237.1	204,300 *
80	75.0	235.6	187,600
85	73.8	233.8	171,600
90	72.5	232.0	157,700
95	71.2	230.0	145,600
100	69.9	227.9	134,900
105	68.6	225.7	125,300
110	67.3	223.3	116,800
115	65.9	220.8	109,100
120	64.5	218.1	102,200
125	63.2	215.3	95,800
130	61.8	212.3	90,000
135	60.4	209.2	84,700
140	58.9	205.8	79,800
145	57.4	202.3	75,300
150	56.0	198.6	71,100
155	54.4	194.7	67,200
160	52.9	190.5	63,600
165	51.3	186.1	60,200
170	49.6	181.5	57,000
175	48.0	176.6	54,000
180	46.2	171.4	51,200
185	44.4	165.8	48,500
190	42.6	159.9	45,800 *
195	40.6	153.5	43,100 *
200	38.6	146.7	40,500 *
205	36.5	139.4	38,000 *

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	213,900 *
70	78.5	259.0	210,600 *
75	77.4	257.6	201,700 *
80	76.2	256.2	184,900 *
85	75.0	254.6	170,300 *
90	73.9	252.9	156,700
95	72.7	251.1	144,500
100	71.5	249.2	133,800
105	70.3	247.2	124,200
110	69.1	245.0	115,600
115	67.9	242.7	107,900
120	66.7	240.3	100,900
125	65.4	237.8	94,600
130	64.2	235.1	88,800
135	62.9	232.2	83,400
140	61.6	229.2	78,500
145	60.3	226.1	74,000
150	59.0	222.8	69,800
155	57.6	219.3	65,900
160	56.2	215.7	62,200
165	54.8	211.8	58,800
170	53.4	207.8	55,700
175	52.0	203.5	52,600 *
180	50.5	199.1	49,500 *
185	48.9	194.3	46,600 *
190	47.4	189.3	43,800 *
195	45.8	184.1	41,200 *
200	44.1	178.5	38,600 *
205	42.4	172.6	36,200 *
210	40.6	166.3	33,900 *
215	38.8	159.5	31,700 *
220	36.8	152.3	29,500 *

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	184,700 *
80	77.2	276.6	181,200 *
85	76.1	275.2	168,600 *
90	75.1	273.6	155,600 *
95	74.0	272.0	143,600
100	72.9	270.2	132,800
105	71.8	268.4	123,200
110	70.7	266.4	114,600
115	69.6	264.3	106,800
120	68.4	262.1	99,800
125	67.3	259.7	93,500
130	66.2	257.3	87,600
135	65.0	254.7	82,300
140	63.8	252.0	77,400
145	62.6	249.1	72,800
150	61.4	246.2	68,600
155	60.2	243.0	64,700
160	59.0	239.8	61,100
165	57.7	236.3	57,500 *
170	56.5	232.7	54,100 *
175	55.2	229.0	50,800 *
180	53.9	225.0	47,700 *
185	52.5	220.9	44,800 *
190	51.2	216.5	42,100 *
195	49.8	211.9	39,500 *
200	48.4	207.2	37,000 *
205	46.9	202.1	34,600 *
210	45.4	196.8	32,300 *
215	43.8	191.2	30,100 *
220	42.2	185.3	28,000 *
225	40.6	179.0	26,000 *
230	38.9	172.4	24,000 *
235	37.1	165.2	22,100 *
240	35.2	157.6	20,300 *



332,000 lb
+
120,000 lb



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	180,400 *
80	78.1	297.0	177,700 *
85	77.1	295.7	165,200 *
90	76.1	294.2	152,700 *
95	75.1	292.7	141,100 *
100	74.1	291.0	130,800 *
105	73.1	289.3	121,500 *
110	72.0	287.5	113,100 *
115	71.0	285.5	105,500 *
120	70.0	283.5	98,500 *
125	68.9	281.4	92,100 *
130	67.9	279.1	86,100 *
135	66.8	276.7	80,700 *
140	65.7	274.3	75,600 *
145	64.6	271.7	70,900 *
150	63.5	268.9	66,500 *
155	62.4	266.1	62,400 *
160	61.3	263.1	58,500 *
165	60.2	260.0	54,900 *
170	59.0	256.7	51,500 *
175	57.9	253.3	48,300 *
180	56.7	249.8	45,200 *
185	55.5	246.1	42,300 *
190	54.3	242.2	39,600 *
195	53.0	238.1	37,000 *
200	51.8	233.9	34,500 *
205	50.5	229.5	32,200 *
210	49.2	224.8	29,900 *
215	47.8	220.0	27,800 *
220	46.5	214.9	25,700 *
225	45.1	209.5	23,700 *
230	43.6	203.9	21,800 *
235	42.1	198.0	20,000 *
240	40.6	191.8	18,200 *
245	39.0	185.1	16,500 *
250	37.3	178.1	14,900 *
255	35.6	170.7	13,300 *

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	155,000 *
85	77.9	316.0	152,100 *
90	77.0	314.7	149,300 *
95	76.0	313.2	139,600 *
100	75.1	311.7	129,300 *
105	74.1	310.1	120,000 *
110	73.2	308.4	111,600 *
115	72.2	306.6	103,900 *
120	71.3	304.7	96,900 *
125	70.3	302.7	90,500 *
130	69.3	300.6	84,600 *
135	68.3	298.4	79,100 *
140	67.3	296.1	74,000 *
145	66.3	293.7	69,300 *
150	65.3	291.2	64,900 *
155	64.3	288.6	60,800 *
160	63.3	285.9	56,900 *
165	62.2	283.0	53,300 *
170	61.2	280.0	49,900 *
175	60.1	276.9	46,700 *
180	59.1	273.7	43,700 *
185	58.0	270.3	40,800 *
190	56.9	266.8	38,100 *
195	55.7	263.1	35,500 *
200	54.6	259.3	33,000 *
205	53.5	255.4	30,700 *
210	52.3	251.2	28,400 *
215	51.1	246.9	26,300 *
220	49.9	242.4	24,200 *
225	48.6	237.7	22,300 *
230	47.4	232.8	20,400 *
235	46.1	227.6	18,600 *
240	44.8	222.3	16,900 *
245	43.4	216.6	15,200 *
250	42.0	210.7	13,600 *
255	40.6	204.5	12,000 *
260	39.1	197.9	10,500 *
265	37.5	191.0	9,000 *
270	35.9	183.6	7,600 *