

Liftcrane Boom Capacities

4100W

Boom No. 27 With Open Throat Top
Offset 4-1/2 Degrees
36 Ft. RINGER Attachment On Blocking
122,400 Lb. Crane Counterweight
135,000 Lb. Auxiliary Counterweight
Barge Mount - 1/2 Degree thru 2 Degree Machine List
75% Tipping - 360 Degree Rating

4100W SERIES 1
RINGER SERIES 3

LIFTING CAPACITIES: Lifting capacities are for a crawler machine when operating on a barge. Machine shall be positively secured to prevent shifting. 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 capacity for liftcrane service with single part whip line or combination of two single part lines is 28,300 Lbs. 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 with roller path properly supported and machine list not to exceed degrees noted. Refer to boom rigging **No. 50999** and Wire Rope Specification chart **No. 6144**. 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 operators manual for operating guidelines.

OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation at barge deck to center of vertical hoist line or load block. Boom angle 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 barge deck to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 36 Ft. RINGER attachment on blocking, 26 Ft. 6 in. extendible crawlers, 48 in. treads, 17 Ft. retractable gantry, 130 Ft. mast, 8 part boom hoist reeving, four 1-3/8 in. boom pendants, 14 in. diameter x 16 in. width boom hoist drums, 122,400 Lb. crane counterweight and 135,000 Lb. auxiliary counterweight.

Maximum Boom Lengths Lifted Unassisted	
List	Boom Length
1/2 Degree	280 Ft.
1 Degree	260 Ft.
2 Degree	240 Ft.
Load block, hook and weight ball on barge deck at start. Jib is not to be used on machine while operating on a barge.	



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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	1/2 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	Oper. Radius Feet
140 Ft. BOOM						
38	82.7	146.4	352,900 *			38
40	81.9	146.1	352,900 *	272,400 *		40
45	79.8	145.2	352,900 *	272,400 *	184,700 *	45
50	77.7	144.0	346,400	272,400 *	184,700 *	50
55	75.6	142.7	300,300	272,400 *	184,700 *	55
60	73.5	141.2	264,600	255,900	184,700 *	60
65	71.3	139.5	236,200	229,100	184,700 *	65
70	69.1	137.6	213,000	207,100	184,700 *	70
75	66.9	135.5	193,600	188,700	179,100	75
80	64.6	133.1	177,300	173,100	164,900	80
85	62.3	130.4	163,400	159,700	152,600	85
90	59.9	127.5	151,300	148,100	141,900	90
95	57.5	124.4	140,700	138,000	132,500	95
100	55.0	120.9	131,400	129,000	124,200	100
105	52.4	117.0	123,200	121,000	116,700	105
110	49.8	112.8	115,800	113,900	110,100	110
115	47.0	108.2	109,100	107,400	104,000	115
120	44.1	103.0	103,100	101,600	98,600	120
125	41.0	97.3	97,700	96,300	93,600	125
130	37.6	90.9	92,700	91,500	89,100	130
135	34.0	83.7	88,200	87,100	84,900	135
140	30.0	75.3	84,000	83,000	81,100	140
160 Ft. BOOM						
45	81.1	165.5	346,800 *	267,500 *		45
50	79.3	164.5	343,300	267,500 *	180,900 *	50
55	77.4	163.4	297,700	267,500 *	180,900 *	55
60	75.6	162.1	262,300	252,500	180,900 *	60
65	73.7	160.6	234,100	226,100	180,900 *	65
70	71.8	159.0	211,000	204,400	180,900 *	70
75	69.9	157.1	191,800	186,200	175,600	75
80	68.0	155.1	175,600	170,800	161,700	80
85	66.0	152.9	161,700	157,600	149,600	85
90	64.0	150.4	149,700	146,100	139,100	90
95	62.0	147.8	139,100	136,000	129,900	95
100	59.9	144.9	129,900	127,100	121,600	100
105	57.8	141.7	121,600	119,200	114,300	105
110	55.7	138.3	114,300	112,100	107,700	110
115	53.4	134.6	107,700	105,700	101,800	115
120	51.1	130.6	101,700	99,900	96,300	120
125	48.8	126.2	96,200	94,600	91,400	125
130	46.3	121.5	91,300	89,800	86,900	130
135	43.7	116.3	86,700	85,400	82,800	135
140	41.0	110.6	82,600	81,400	79,000	140
145	38.1	104.3	78,700	77,600	75,400	145
150	35.1	97.3	75,100	74,200	72,200	150
155	31.7	89.4	71,800	71,000	69,200	155
160	28.0	80.3	68,800	68,000	66,400	160

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4100W SERIES 1
RINGER SERIES 3

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	1/2 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	Oper. Radius Feet
180 Ft. BOOM						
45	82.1	185.8	334,000 *			45
50	80.5	184.9	334,000 *	262,000 *	177,500 *	50
55	78.8	183.9	294,500	262,000 *	177,500 *	55
60	77.2	182.8	259,400	248,600	177,500 *	60
65	75.6	181.5	231,300	222,600	177,500 *	65
70	73.9	180.0	208,400	201,100	177,500 *	70
75	72.2	178.4	189,300	183,200	171,600	75
80	70.6	176.6	173,200	167,900	157,900	80
85	68.9	174.7	159,400	154,800	146,100	85
90	67.1	172.6	147,400	143,400	135,800	90
95	65.4	170.3	137,000	133,400	126,700	95
100	63.6	167.8	127,700	124,600	118,600	100
105	61.8	165.1	119,500	116,800	111,400	105
110	60.0	162.2	112,200	109,700	104,900	110
115	58.1	159.1	105,600	103,400	99,000	115
120	56.2	155.7	99,600	97,600	93,600	120
125	54.2	152.1	94,200	92,400	88,800	125
130	52.2	148.2	89,300	87,600	84,300	130
135	50.1	144.1	84,700	83,200	80,200	135
140	48.0	139.6	80,600	79,200	76,400	140
145	45.8	134.7	76,700	75,400	72,900	145
150	43.5	129.5	73,200	72,000	69,700	150
155	41.1	123.8	69,800	68,800	66,600	155
160	38.5	117.6	66,800	65,800	63,800	160
165	35.8	110.8	63,900	63,000	61,200	165
170	32.9	103.2	61,200	60,400	58,800	170
175	29.8	94.7	58,700	58,000	56,500	175
180	26.3	84.9	56,400	55,700	54,300	180

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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	1/2 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	Oper. Radius Feet
200 Ft. BOOM						
50	81.4	205.2	314,700 *	253,700 *		50
55	80.0	204.3	292,000	253,700 *	174,400 *	55
60	78.5	203.3	257,200	245,500	174,400 *	60
65	77.0	202.1	229,400	219,800	174,400 *	65
70	75.6	200.8	206,600	198,600	174,400 *	70
75	74.1	199.4	187,600	180,900	168,400	75
80	72.6	197.8	171,600	165,800	155,000	80
85	71.1	196.1	157,900	152,900	143,400	85
90	69.5	194.2	146,000	141,600	133,300	90
95	68.0	192.2	135,500	131,700	124,300	95
100	66.4	190.0	126,300	122,900	116,300	100
105	64.8	187.6	118,200	115,100	109,200	105
110	63.2	185.1	110,900	108,100	102,800	110
115	61.6	182.4	104,300	101,800	97,000	115
120	60.0	179.5	98,400	96,100	91,700	120
125	58.3	176.4	92,900	90,900	86,900	125
130	56.6	173.1	88,000	86,100	82,500	130
135	54.8	169.6	83,500	81,800	78,400	135
140	53.0	165.8	79,300	77,800	74,700	140
145	51.2	161.8	75,500	74,000	71,200	145
150	49.3	157.5	71,900	70,600	68,000	150
155	47.4	152.9	68,600	67,400	65,000	155
160	45.3	148.0	65,600	64,400	62,200	160
165	43.3	142.7	62,700	61,700	59,600	165
170	41.1	137.0	60,000	59,100	57,100	170
175	38.8	130.9	57,500	56,600	54,800	175
180	36.4	124.2	55,100	54,300	52,700	180
185	33.9	116.9	52,900	52,200	50,700	185
190	31.2	108.7	50,800	50,200	48,800	190
195	28.2	99.7	48,900	48,200	47,000	195
200	24.9	89.2	47,000	46,400	45,300	200

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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	1/2 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	Oper. Radius Feet
220 Ft. BOOM						
50	82.2	225.5	289,700 *			50
55	80.9	224.7	289,200	240,100 *		55
60	79.6	223.7	254,700	240,100 *	171,100 *	60
65	78.2	222.7	227,100	216,800	171,100 *	65
70	76.9	221.5	204,500	195,900	171,100 *	70
75	75.6	220.2	185,600	178,400	164,900	75
80	74.2	218.8	169,700	163,400	151,800	80
85	72.8	217.2	156,000	150,600	140,400	85
90	71.5	215.5	144,200	139,400	130,500	90
95	70.1	213.7	133,800	129,600	121,700	95
100	68.7	211.8	124,700	120,900	113,800	100
105	67.3	209.7	116,500	113,200	106,800	105
110	65.9	207.4	109,200	106,200	100,500	110
115	64.4	205.0	102,700	100,000	94,700	115
120	62.9	202.4	96,800	94,300	89,500	120
125	61.5	199.7	91,400	89,100	84,800	125
130	60.0	196.8	86,400	84,400	80,400	130
135	58.4	193.7	81,900	80,100	76,400	135
140	56.9	190.5	77,800	76,100	72,700	140
145	55.3	187.0	74,000	72,400	69,200	145
150	53.7	183.3	70,400	68,900	66,000	150
155	52.0	179.5	67,100	65,800	63,100	155
160	50.3	175.3	64,100	62,800	60,300	160
165	48.6	170.9	61,200	60,000	57,700	165
170	46.8	166.2	58,500	57,400	55,300	170
175	45.0	161.3	56,000	55,000	53,000	175
180	43.1	156.0	53,700	52,700	50,800	180
185	41.1	150.3	51,400	50,600	48,800	185
190	39.1	144.2	49,400	48,500	46,900	190
195	36.9	137.6	47,400	46,600	45,100	195
200	34.6	130.4	45,500	44,800	43,400	200
205	32.2	122.6	43,800	43,100	41,800	205
210	29.6	114.0	42,100	41,500	40,300	210
215	26.8	104.4	40,500	39,900	38,800	215
220	23.7	93.4	39,000	38,500	37,500	220



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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	1/2 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	Oper. Radius Feet
240 Ft. BOOM						
55	81.7	244.9	264,100 *	222,800 *		55
60	80.5	244.1	252,400	222,800 *	166,100 *	60
65	79.2	243.1	224,900	213,900	166,100 *	65
70	78.0	242.1	202,500	193,200	166,100 *	70
75	76.8	240.9	183,700	175,900	161,600	75
80	75.6	239.6	167,900	161,200	148,800	80
85	74.3	238.2	154,300	148,400	137,600	85
90	73.1	236.6	142,500	137,400	127,800	90
95	71.8	235.0	132,200	127,600	119,100	95
100	70.6	233.2	123,000	119,000	111,400	100
105	69.3	231.3	114,900	111,300	104,500	105
110	68.0	229.3	107,700	104,400	98,300	110
115	66.7	227.1	101,200	98,200	92,600	115
120	65.4	224.8	95,300	92,600	87,500	120
125	64.0	222.4	89,900	87,400	82,700	125
130	62.7	219.8	85,000	82,700	78,400	130
135	61.3	217.0	80,500	78,400	74,500	135
140	60.0	214.1	76,300	74,500	70,800	140
145	58.6	211.1	72,500	70,800	67,400	145
150	57.1	207.9	69,000	67,400	64,200	150
155	55.7	204.4	65,700	64,200	61,300	155
160	54.2	200.8	62,600	61,300	58,500	160
165	52.7	197.0	59,800	58,500	55,900	165
170	51.2	193.0	57,100	55,900	53,500	170
175	49.6	188.8	54,600	53,500	51,300	175
180	48.0	184.3	52,300	51,200	49,100	180
185	46.4	179.6	50,000	49,100	47,100	185
190	44.7	174.5	48,000	47,000	45,200	190
195	43.0	169.2	46,000	45,100	43,400	195
200	41.1	163.5	44,100	43,300	41,700	200
205	39.3	157.4	42,400	41,600	40,100	205
210	37.3	150.9	40,700	40,000	38,600	210
215	35.3	143.9	39,100	38,400	37,100	215
220	33.1	136.4	37,600	37,000	35,700	220
225	30.8	128.1	36,200	35,600	34,400	225
230	28.3	119.0	34,800	34,300	33,200	230
235	25.6	108.9	33,500	33,000	32,000	235
240	22.6	97.3	32,200	31,800	30,900	240

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260 Ft. BOOM					
60	81.2	264.4	233,300 *	203,800 *	60
65	80.1	263.5	222,800	203,200 *	65
70	79.0	262.5	200,500	190,600	70
75	77.8	261.4	181,900	173,500	75
80	76.7	260.2	166,100	158,900	80
85	75.6	258.9	152,600	146,300	85
90	74.4	257.5	140,800	135,400	90
95	73.3	256.0	130,600	125,700	95
100	72.1	254.4	121,500	117,200	100
105	70.9	252.7	113,400	109,500	105
110	69.8	250.8	106,200	102,700	110
115	68.6	248.8	99,700	96,500	115
120	67.4	246.7	93,800	90,900	120
125	66.2	244.5	88,400	85,800	125
130	65.0	242.2	83,500	81,100	130
135	63.7	239.7	79,100	76,900	135
140	62.5	237.1	74,900	72,900	140
145	61.2	234.4	71,100	69,200	145
150	60.0	231.5	67,600	65,800	150
155	58.7	228.4	64,300	62,700	155
160	57.4	225.2	61,300	59,800	160
165	56.0	221.8	58,400	57,000	165
170	54.7	218.3	55,800	54,400	170
175	53.3	214.6	53,300	52,000	175
180	51.9	210.7	50,900	49,800	180
185	50.5	206.6	48,700	47,600	185
190	49.0	202.2	46,600	45,600	190
195	47.5	197.7	44,600	43,700	195
200	46.0	192.9	42,800	41,900	200
205	44.5	187.8	41,000	40,200	205
210	42.8	182.4	39,300	38,600	210
215	41.2	176.7	37,800	37,000	215
220	39.4	170.7	36,300	35,600	220
225	37.6	164.3	34,800	34,200	225
230	35.8	157.4	33,400	32,800	230
235	33.8	150.0	32,100	31,600	235
240	31.7	142.0	30,900	30,300	240
245	29.5	133.4	29,700	29,200	245
250	27.2	123.8	28,500	28,100	250
255	24.6	113.2	27,500	27,000	255
260	21.7	101.1	26,400	26,000	260

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	1/2 Degree List Boom Capacity Pounds
280 Ft. BOOM			
60	81.8	284.6	209,600 *
65	80.8	283.8	209,600 *
70	79.8	282.9	198,500
75	78.7	281.9	180,000
80	77.7	280.8	164,300
85	76.6	279.6	150,800
90	75.6	278.3	139,100
95	74.5	276.9	128,900
100	73.4	275.4	119,900
105	72.4	273.8	111,800
110	71.3	272.1	104,600
115	70.2	270.3	98,100
120	69.1	268.4	92,300
125	68.0	266.3	86,900
130	66.9	264.2	82,100
135	65.8	261.9	77,600
140	64.6	259.6	73,500
145	63.5	257.1	69,700
150	62.3	254.4	66,200
155	61.2	251.7	62,900
160	60.0	248.8	59,800
165	58.8	245.8	57,000
170	57.6	242.6	54,300
175	56.3	239.2	51,800
180	55.1	235.8	49,500
185	53.8	232.1	47,300
190	52.5	228.3	45,200
195	51.2	224.3	43,300
200	49.9	220.0	41,400
205	48.5	215.6	39,600
210	47.1	211.0	38,000
215	45.7	206.1	36,400
220	44.2	201.0	34,900
225	42.7	195.6	33,400
230	41.2	190.0	32,100
235	39.6	183.9	30,800
240	37.9	177.6	29,500
245	36.2	170.8	28,300
250	34.4	163.6	27,200
255	32.5	155.8	26,100
260	30.5	147.5	25,000
265	28.4	138.4	24,000
270	26.1	128.5	23,000
275	23.7	117.4	22,100
280	20.9	104.8	21,200