

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
275,000 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 275,000 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	352,900 *	272,400 *	184,700 *	50
55	75.6	142.7	352,900 *	272,400 *	184,700 *	55
60	73.5	141.2	352,900 *	272,400 *	184,700 *	60
65	71.3	139.5	321,900	272,400 *	184,700 *	65
70	69.1	137.6	290,800	272,400 *	184,700 *	70
75	66.9	135.5	265,000	258,400	184,700 *	75
80	64.6	133.1	243,100	237,500	184,700 *	80
85	62.3	130.4	224,500	219,600	184,700 *	85
90	59.9	127.5	208,300	204,100	184,700 *	90
95	57.5	124.4	194,100	190,500	179,200 *	95
100	55.0	120.9	181,700	178,400	169,300 *	100
105	52.4	117.0	170,600	167,800	160,400 *	105
110	49.8	112.8	160,700	158,200	152,400 *	110
115	47.0	108.2	151,800	149,600	145,000 *	115
120	44.1	103.0	143,800	141,800	137,900	120
125	41.0	97.3	136,500	134,700	131,200	125
130	37.6	90.9	129,800	128,300	125,100	130
135	34.0	83.7	123,800	122,300	119,600	135
140	30.0	75.3	115,200 *	115,200 *	114,500	140
160 Ft. BOOM						
45	81.1	165.5	346,800 *	267,500 *		45
50	79.3	164.5	346,800 *	267,500 *	180,900 *	50
55	77.4	163.4	346,800 *	267,500 *	180,900 *	55
60	75.6	162.1	346,800 *	267,500 *	180,900 *	60
65	73.7	160.6	319,500	267,500 *	180,900 *	65
70	71.8	159.0	288,600	267,500 *	180,900 *	70
75	69.9	157.1	262,900	255,500	180,900 *	75
80	68.0	155.1	241,200	234,800	180,900 *	80
85	66.0	152.9	222,600	217,100	180,900 *	85
90	64.0	150.4	206,500	201,700	180,900 *	90
95	62.0	147.8	192,400	188,200	177,700 *	95
100	59.9	144.9	180,000	176,300	167,900 *	100
105	57.8	141.7	169,000	165,700	159,000 *	105
110	55.7	138.3	159,100	156,200	150,500	110
115	53.4	134.6	150,300	147,600	142,600	115
120	51.1	130.6	142,200	139,900	135,300	120
125	48.8	126.2	135,000	132,800	128,700	125
130	46.3	121.5	128,300	126,400	122,700	130
135	43.7	116.3	122,200	120,500	117,100	135
140	41.0	110.6	116,600	115,100	112,000	140
145	38.1	104.3	111,500	110,100	107,300	145
150	35.1	97.3	106,700	105,400	102,900	150
155	31.7	89.4	102,300	101,100	98,900	155
160	28.0	80.3	98,200	97,100	95,100	160

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122,400 Lb. Crane Counterweight
275,000 Lb. Auxiliary Counterweight
Barge Mount - 1/2 Degree thru 2 Degree Machine List
75% Tipping - 360 Degree Rating

4100W SERIES 1
RINGER SERIES 3

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	334,000 *	262,000 *	177,500 *	55
60	77.2	182.8	334,000 *	262,000 *	177,500 *	60
65	75.6	181.5	316,400	262,000 *	177,500 *	65
70	73.9	180.0	285,800	262,000 *	177,500 *	70
75	72.2	178.4	260,200	252,000	177,500 *	75
80	70.6	176.6	238,600	231,600	177,500 *	80
85	68.9	174.7	220,100	214,100	177,500 *	85
90	67.1	172.6	204,100	198,800	177,500 *	90
95	65.4	170.3	190,100	185,400	175,600 *	95
100	63.6	167.8	177,700	173,600	165,700	100
105	61.8	165.1	166,800	163,100	156,000	105
110	60.0	162.2	156,900	153,600	147,300	110
115	58.1	159.1	148,100	145,100	139,400	115
120	56.2	155.7	140,100	137,400	132,300	120
125	54.2	152.1	132,900	130,400	125,700	125
130	52.2	148.2	126,200	124,000	119,700	130
135	50.1	144.1	120,200	118,100	114,200	135
140	48.0	139.6	114,600	112,700	109,200	140
145	45.8	134.7	109,400	107,700	104,500	145
150	43.5	129.5	104,700	103,100	100,100	150
155	41.1	123.8	100,200	98,800	96,100	155
160	38.5	117.6	96,100	94,800	92,300	160
165	35.8	110.8	92,300	91,100	88,800	165
170	32.9	103.2	88,700	87,600	85,500	170
175	29.8	94.7	85,300	84,400	82,500	175
180	26.3	84.9	82,200	81,300	79,600	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	314,700 *	253,700 *	174,400 *	55
60	78.5	203.3	314,700 *	253,700 *	174,400 *	60
65	77.0	202.1	314,200	253,700 *	174,400 *	65
70	75.6	200.8	283,700	253,700 *	174,400 *	70
75	74.1	199.4	258,300	249,300	174,400 *	75
80	72.6	197.8	236,800	229,200	174,400 *	80
85	71.1	196.1	218,400	211,800	174,400 *	85
90	69.5	194.2	202,500	196,700	174,400 *	90
95	68.0	192.2	188,500	183,400	173,800	95
100	66.4	190.0	176,200	171,700	163,100	100
105	64.8	187.6	165,300	161,200	153,500	105
110	63.2	185.1	155,500	151,900	144,900	110
115	61.6	182.4	146,700	143,400	137,100	115
120	60.0	179.5	138,700	135,800	130,100	120
125	58.3	176.4	131,500	128,800	123,600	125
130	56.6	173.1	124,900	122,400	117,700	130
135	54.8	169.6	118,800	116,600	112,200	135
140	53.0	165.8	113,300	111,200	107,200	140
145	51.2	161.8	108,100	106,200	102,600	145
150	49.3	157.5	103,400	101,600	98,200	150
155	47.4	152.9	99,000	97,300	94,200	155
160	45.3	148.0	94,800	93,400	90,500	160
165	43.3	142.7	91,000	89,600	87,000	165
170	41.1	137.0	87,400	86,200	83,700	170
175	38.8	130.9	84,100	82,900	80,600	175
180	36.4	124.2	80,900	79,800	77,700	180
185	33.9	116.9	77,900	76,900	75,000	185
190	31.2	108.7	75,100	74,200	72,500	190
195	28.2	99.7	72,500	71,700	70,100	195
200	24.9	89.2	70,000	69,300	67,800	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	289,700 *	240,100 *		55
60	79.6	223.7	289,700 *	240,100 *	171,100 *	60
65	78.2	222.7	289,700 *	240,100 *	171,100 *	65
70	76.9	221.5	281,300	240,100 *	171,100 *	70
75	75.6	220.2	256,100	240,100 *	171,100 *	75
80	74.2	218.8	234,700	226,400	171,100 *	80
85	72.8	217.2	216,400	209,200	171,100 *	85
90	71.5	215.5	200,600	194,200	171,100 *	90
95	70.1	213.7	186,700	181,100	170,700	95
100	68.7	211.8	174,400	169,500	160,200	100
105	67.3	209.7	163,500	159,100	150,700	105
110	65.9	207.4	153,800	149,800	142,300	110
115	64.4	205.0	145,000	141,400	134,600	115
120	62.9	202.4	137,100	133,800	127,600	120
125	61.5	199.7	129,900	126,900	121,200	125
130	60.0	196.8	123,300	120,600	115,400	130
135	58.4	193.7	117,200	114,700	110,000	135
140	56.9	190.5	111,700	109,400	105,000	140
145	55.3	187.0	106,500	104,400	100,400	145
150	53.7	183.3	101,800	99,900	96,100	150
155	52.0	179.5	97,400	95,600	92,100	155
160	50.3	175.3	93,300	91,600	88,400	160
165	48.6	170.9	89,500	87,900	84,900	165
170	46.8	166.2	85,900	84,400	81,700	170
175	45.0	161.3	82,500	81,200	78,600	175
180	43.1	156.0	79,400	78,100	75,700	180
185	41.1	150.3	76,400	75,200	73,000	185
190	39.1	144.2	73,600	72,500	70,400	190
195	36.9	137.6	71,000	70,000	68,000	195
200	34.6	130.4	68,500	67,500	65,700	200
205	32.2	122.6	66,100	65,300	63,600	205
210	29.6	114.0	63,900	63,100	61,500	210
215	26.8	104.4	61,700	61,000	59,600	215
220	23.7	93.4	59,700	59,100	57,800	220

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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
240 Ft. BOOM						
55	81.7	244.9	268,100 *	222,800 *		55
60	80.5	244.1	268,100 *	222,800 *	166,100 *	60
65	79.2	243.1	268,100 *	222,800 *	166,100 *	65
70	78.0	242.1	268,100 *	222,800 *	166,100 *	70
75	76.8	240.9	254,000	222,800 *	166,100 *	75
80	75.6	239.6	232,700	222,800 *	166,100 *	80
85	74.3	238.2	214,500	206,800	166,100 *	85
90	73.1	236.6	198,700	191,900	166,100 *	90
95	71.8	235.0	184,900	178,900	166,100 *	95
100	70.6	233.2	172,700	167,400	157,400	100
105	69.3	231.3	161,900	157,100	148,100	105
110	68.0	229.3	152,200	147,800	139,700	110
115	66.7	227.1	143,400	139,500	132,200	115
120	65.4	224.8	135,500	132,000	125,300	120
125	64.0	222.4	128,300	125,100	118,900	125
130	62.7	219.8	121,700	118,800	113,200	130
135	61.3	217.0	115,700	113,000	107,800	135
140	60.0	214.1	110,200	107,700	102,900	140
145	58.6	211.1	105,100	102,800	98,300	145
150	57.1	207.9	100,300	98,200	94,100	150
155	55.7	204.4	95,900	93,900	90,100	155
160	54.2	200.8	91,800	90,000	86,500	160
165	52.7	197.0	88,000	86,300	83,000	165
170	51.2	193.0	84,400	82,800	79,800	170
175	49.6	188.8	81,100	79,600	76,700	175
180	48.0	184.3	77,900	76,500	73,900	180
185	46.4	179.6	75,000	73,700	71,200	185
190	44.7	174.5	72,200	71,000	68,600	190
195	43.0	169.2	69,500	68,400	66,200	195
200	41.1	163.5	67,000	66,000	63,900	200
205	39.3	157.4	64,700	63,700	61,800	205
210	37.3	150.9	62,400	61,500	59,700	210
215	35.3	143.9	60,300	59,400	57,800	215
220	33.1	136.4	58,300	57,500	55,900	220
225	30.8	128.1	56,400	55,600	54,200	225
230	28.3	119.0	54,500	53,800	52,500	230
235	25.6	108.9	52,800	52,100	50,900	235
240	22.6	97.3	51,100	50,500	49,400	240



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260 Ft. BOOM					
60	81.2	264.4	247,200 *	204,700 *	60
65	80.1	263.5	247,200 *	204,700 *	65
70	79.0	262.5	247,200 *	204,700 *	70
75	77.8	261.4	247,200 *	204,700 *	75
80	76.7	260.2	230,800	204,700 *	80
85	75.6	258.9	212,700	204,400	85
90	74.4	257.5	196,900	189,700	90
95	73.3	256.0	183,200	176,700	95
100	72.1	254.4	171,000	165,300	100
105	70.9	252.7	160,200	155,100	105
110	69.8	250.8	150,600	145,900	110
115	68.6	248.8	141,800	137,700	115
120	67.4	246.7	134,000	130,200	120
125	66.2	244.5	126,800	123,300	125
130	65.0	242.2	120,200	117,100	130
135	63.7	239.7	114,200	111,300	135
140	62.5	237.1	108,700	106,000	140
145	61.2	234.4	103,600	101,100	145
150	60.0	231.5	98,900	96,600	150
155	58.7	228.4	94,500	92,400	155
160	57.4	225.2	90,400	88,400	160
165	56.0	221.8	86,600	84,700	165
170	54.7	218.3	83,000	81,300	170
175	53.3	214.6	79,700	78,100	175
180	51.9	210.7	76,500	75,000	180
185	50.5	206.6	73,600	72,200	185
190	49.0	202.2	70,800	69,500	190
195	47.5	197.7	68,200	66,900	195
200	46.0	192.9	65,700	64,500	200
205	44.5	187.8	63,300	62,200	205
210	42.8	182.4	61,100	60,000	210
215	41.2	176.7	58,900	58,000	215
220	39.4	170.7	56,900	56,000	220
225	37.6	164.3	55,000	54,100	225
230	35.8	157.4	53,200	52,300	230
235	33.8	150.0	51,400	50,600	235
240	31.7	142.0	49,700	49,000	240
245	29.5	133.4	48,100	47,500	245
250	27.2	123.8	46,600	46,000	250
255	24.6	113.2	45,100	44,600	255
260	21.7	101.1	43,700	43,200	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	209,600 *
75	78.7	281.9	209,600 *
80	77.7	280.8	209,600 *
85	76.6	279.6	204,000 *
90	75.6	278.3	192,600 *
95	74.5	276.9	181,400
100	73.4	275.4	169,300
105	72.4	273.8	158,500
110	71.3	272.1	148,900
115	70.2	270.3	140,200
120	69.1	268.4	132,400
125	68.0	266.3	125,200
130	66.9	264.2	118,700
135	65.8	261.9	112,700
140	64.6	259.6	107,200
145	63.5	257.1	102,100
150	62.3	254.4	97,400
155	61.2	251.7	93,000
160	60.0	248.8	88,900
165	58.8	245.8	85,100
170	57.6	242.6	81,600
175	56.3	239.2	78,200
180	55.1	235.8	75,100
185	53.8	232.1	72,200
190	52.5	228.3	69,400
195	51.2	224.3	66,700
200	49.9	220.0	64,200
205	48.5	215.6	61,900
210	47.1	211.0	59,700
215	45.7	206.1	57,500
220	44.2	201.0	55,500
225	42.7	195.6	53,600
230	41.2	190.0	51,800
235	39.6	183.9	50,000
240	37.9	177.6	48,300
245	36.2	170.8	46,700
250	34.4	163.6	45,200
255	32.5	155.8	43,700
260	30.5	147.5	42,300
265	28.4	138.4	41,000
270	26.1	128.5	39,700
275	23.7	117.4	38,400
280	20.9	104.8	37,200