



# STERLING CRANE



## LIFTING CHARTS - Crawler Cranes

### AMERICAN MODEL 5299A - 60 TON CAPACITY

Ratings are in Pounds. 47S Tubular Boom – 3 Sheave. 34,500 Lb. Counterweight.

BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
40' (12.2 M) BOOM	11	80.5		120,000 *	45
	12	79.0		110,020 *	44
	15	74.6		81,530	44
	20	66.9		52,290	42
	25	58.8		38,280	39
	30	49.9		30,040	36
	35	39.5		24,630	31
	40	25.7		20,820	23
50' (15.2 M) BOOM	13	80.1		101,470 *	54
	15	77.7		81,500	54
	20	71.8		52,200	53
	25	65.6		38,200	51
	30	59.0		29,950	48
	35	52.0		24,520	45
	40	44.2		20,710	40
	50	22.9		15,620	25
60' (18.3 M) BOOM	14	80.8		91,550	64
	15	79.8		81,450	64
	20	74.9		52,130	63
	25	69.9		38,110	61
	30	64.7		29,840	59
	35	59.2		24,400	57
	40	53.4		20,620	53
	50	40.1	12,700	15,530	44
70' (21.3 M) BOOM	60	20.8	10,070	12,310	26
	16	80.4		73,180	74
	20	77.1		52,040	73
	25	72.8		38,020	72
	30	68.5		29,740	70
	35	64.0		24,300	68
	40	59.3	16,690	20,530	65
	50	49.1	12,590	15,430	58
80' (24.4 M) BOOM	60	37.0	9,960	12,210	47
	70	19.2	8,140	9,990	28
	17	80.9		66,440	84
	20	78.7		51,910	84
	25	75.1		37,890	82
	30	71.3		29,600	81
	35	67.5		24,150	79
	40	63.5	16,540	20,390	77
	50	55.1	12,440	15,280	71
	60	45.8	9,810	12,060	62
	70	34.5	7,980	9,850	50
	80	17.9	6,650	8,230	30



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90' ( 27.4 M) BOOM	19	80.7		55,910	94
	20	80.0		51,790	94
	25	76.7		37,770	93
	30	73.4		29,460	91
	35	70.1	19,340	24,010	90
	40	66.7	16,400	20,250	88
	50	59.5	12,290	15,150	83
	60	51.7	9,670	11,920	76
	70	43.0	7,830	9,700	66
	80	32.4	6,490	8,080	53
	90	16.8	5,470	6,850	31
100' ( 30.5 M) BOOM	21	80.4		48,100	104
	25	78.1		37,650	103
	30	75.1	23,440	29,330	102
	35	72.2	19,200	23,880	100
	40	69.1	16,270	20,130	99
	50	62.8	12,170	15,030	94
	60	56.1	9,530	11,790	88
	70	48.8	7,700	9,570	80
	80	40.7	6,360	7,950	70
	90	30.7	5,330	6,720	56
	100	15.9	4,520	5,750	33
110' ( 33.5 M) BOOM	22	80.8		44,970	114
	25	79.2		37,510	113
	30	76.5	23,280	29,180	112
	35	73.8	19,030	23,720	111
	40	71.1	16,110	19,980	109
	50	65.5	12,000	14,870	105
	60	59.6	9,370	11,640	100
	70	53.3	7,540	9,420	93
	80	46.4	6,190	7,790	85
	90	38.7	5,160	6,550	74
	100	29.2	4,360	5,590	59
	110	15.2	3,710	4,810	34
120' ( 36.6 M) BOOM	24	80.6		39,590	124
	25	80.1		37,370	123
	30	77.7	23,130	29,050	122
	35	75.2	18,870	23,570	121
	40	72.7	15,970	19,850	120
	50	67.6	11,850	14,720	116
	60	62.3	9,220	11,490	111
	70	56.8	7,390	9,260	106
	80	50.8	6,040	7,640	98
	90	44.3	5,000	6,400	89
	100	36.9	4,200	5,430	77
	110	28.0	3,540	4,640	61
	120	14.5	3,010	4,010	35



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BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
130' (39.6 M) BOOM	25	80.9	29,310	37,240	133
	30	78.6	22,990	28,910	133
	35	76.4	18,720	23,420	131
	40	74.1	15,820	19,710	130
	50	69.4	11,710	14,580	127
	60	64.6	9,070	11,350	123
	70	59.6	7,230	9,120	117
	80	54.4	5,890	7,490	111
	90	48.7	4,850	6,250	103
	100	42.5	4,050	5,280	93
	110	35.4	3,380	4,490	81
	120	26.8	2,850	3,850	64
	130	13.9	2,410	3,330	36
140' (42.7 M) BOOM	27	80.7	26,290	33,300	143
	30	79.4	22,820	28,760	143
	35	77.4	18,550	23,260	142
	40	75.3	15,670	19,560	141
	50	71.0	11,540	14,420	137
	60	66.6	8,900	11,190	134
	70	62.0	7,070	8,960	129
	80	57.2	5,720	7,320	123
	90	52.2	4,680	6,080	116
	100	46.8	3,880	5,110	107
	110	40.9	3,210	4,320	97
	120	34.1	2,670	3,680	84
	130	25.8	2,230	3,150	66
	140	13.4	1,860	2,700	38
150' (45.7 M) BOOM	28	80.9	24,880	31,110 *	153
	30	80.2	22,660	28,610	153
	35	78.2	18,390	23,110	152
	40	76.3	15,510	19,420	151
	50	72.3	11,390	14,280	148
	60	68.2	8,740	11,030	144
	70	64.0	6,910	8,800	140
	80	59.7	5,560	7,170	135
	90	55.1	4,530	5,930	128
	100	50.3	3,710	4,950	121
	110	45.1	3,050	4,160	111
	120	39.4	2,510	3,520	100
	130	32.9	2,060	2,980	87
	140	24.9	1,670	2,520	68
	150	12.9	1,360	2,140	39



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BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
160' (48.8 M) BOOM	30	80.8	22,510	27,060 *	163
	35	79.0	18,230	22,960	162
	40	77.1	15,370	19,280	161
	50	73.4	11,240	14,130	158
	60	69.6	8,600	10,890	155
	70	65.8	6,750	8,650	151
	80	61.8	5,400	7,020	146
	90	57.6	4,370	5,770	140
	100	53.2	3,550	4,800	133
	110	48.6	2,890	4,000	125
	120	43.6	2,350	3,360	116
	130	38.1	1,890	2,820	104
	140	31.8	1,510	2,360	89
	150	24.1	1,190	1,970	70
	160	12.5	910	1,650	40



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## WARNING

**This rating chart is invalid if the crane has been modified or altered by use of other than GENUINE AMERICAN PARTS as such modifications or alterations may affect its capacity or safe operation. See American Crane Corporation Service Bulletin #259.**

Ratings in this chart are in POUNDS and do not exceed the percentage of tipping specified for this crane by ANSI B30.5. All ratings require that the crane be standing level on a firm uniformly supporting surface.

Do not lift loads in excess of those shown on this chart. Lifting loads in excess of those shown or operation not in accordance with good operating practice, including limitations shown on page 3499 of Operator's Manual, can cause tipping, structural damage or catastrophic failure.

" RADIUS IN FEET " is the horizontal distance at ground level from the crane centerline of rotation to a vertical line through the center of gravity of the suspended load.

When using the main boom fall with jib in place, the main fall ratings must be reduced by the jib effective weight shown on the jib rating chart plus twice the weight of all suspended blocks, slings, rope, etc., at the jib fall. See Appendix A.

When using the main boom fall with boom tip extension in place, the main fall ratings must be reduced by the weight of the boom tip extension plus twice the weight of all suspended blocks, slings, rope, etc., at the boom tip extension fall. See Appendix A.

Blocks, slings, buckets and other load carrying devices are considered part of the load. The weight of standard hoisting ropes for the rating at a given radius has been calculated as part of the boom point load and need not be considered in determining net allowable loads. See Appendix A.

This chart was developed exclusively for use with a boom only. Under no circumstances are these ratings to be interpreted for use with a jib.

Ratings shown on this chart make no allowance for such factors as out of plumb loads, wind, poor soil conditions, improper inflation of rubber tires and dynamic effects due to excessive operating speeds. The user (operator) must exercise judgement to make allowance for these conditions. See page 3499 of Operator's Manual for detailed information.

No account is taken of the wind force on the load. This effect, which can be substantial for loads with large surface areas, must be considered by the user. In any wind it is strongly recommended that taglines be used to control the load.

BOOM HOIST LINE is 10 parts of 0.625 inch diameter 6x26, WS, FW, RAL, IWRC, EIPS wire rope with a minimum breaking strength of 41,200 pounds.

BOOM PENDANT SUSPENSION is 2 parts of 1.125 inch diameter MONOLAY wire rope with a minimum breaking strength of 140,600 pounds.

MAIN LOAD LINE is 0.875 inch diameter 6x25, FW, RRL, IWRC, EIPS wire rope with a minimum breaking strength of 79,600 pounds.



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Erection over the idler end with A-Frame fully raised and idler tumblers blocked. Erection over the side with A-Frame fully raised and side frames extended. Blocks, slings and other load carrying devices must be on the ground during erection.

The crane will self-erect 160' of boom with 60' of #7HL Jib.

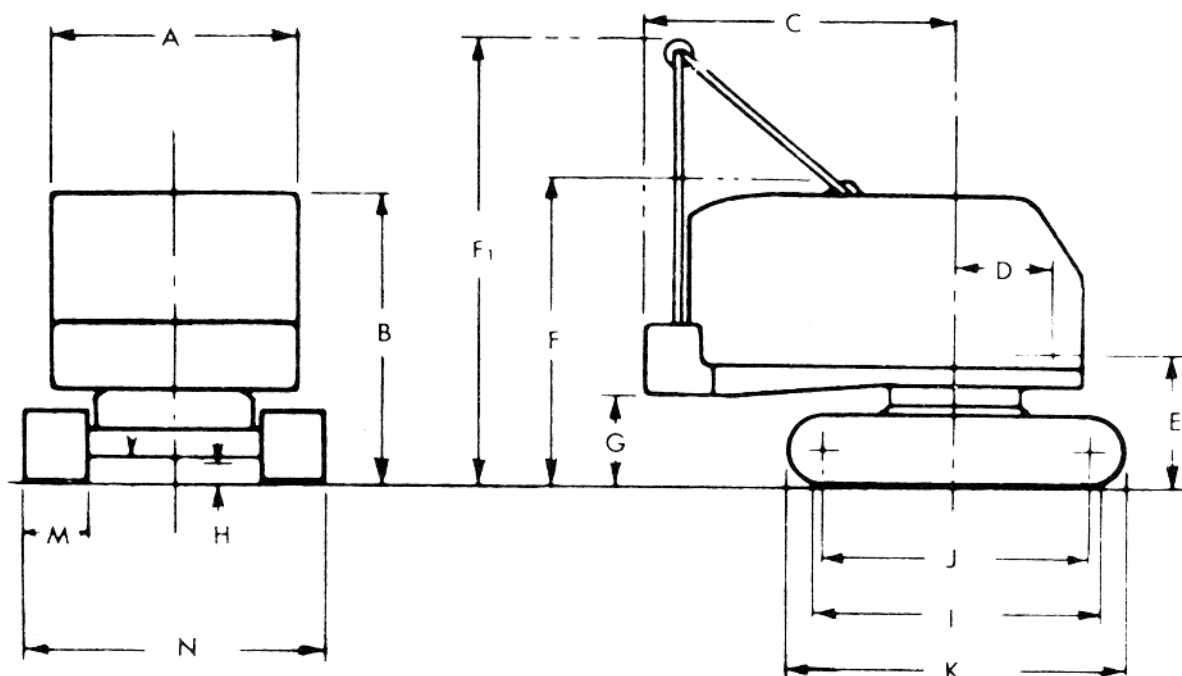
LOAD HOISTING INFORMATION			
MAXIMUM LIFTING CAPACITY (POUNDS)	MINIMUM PARTS OF LINE	MAXIMUM HOISTING DISTANCE (FEET)	
		R.H. DRUM C.L.L.	L.H. DRUM
120,000	6	86'	66'
113,710	5	103'	79'
90,970	4	129'	99'
68,220	3	172'	132'
45,480	2	258'	198'
22,740	1	517'	396'

BOOM COMPOSITION					
BOOM SECTIONS					
BOOM LENGTH FEET	20' 47S INNER	10' 47S CENTER	20' 47S CENTER	30' 47S CENTER	20' 47S OUTER
40	1	0	0	0	1
50	1	1	0	0	1
60	1	0	1	0	1
70	1	0	0	1	1
80	1	1	0	1	1
90	1	0	1	1	1
100	1	0	0	2	1
110	1	1	0	2	1
120	1	0	1	2	1
130	1	0	0	3	1
140	1	1	0	3	1
150	1	0	1	3	1
160	1	0	0	4	1



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## GENERAL DIMENSIONS



A.	Width of cab	9' 0"	I.	Crawler bearing length	15' 10"
B.	Height over cab	10' 8-7/8"	J.	Center to center crawler tumblers	14' 11"
C.	Tailswing	12' 2"	K.	Overall length of crawlers	17' 6"
D.	Center of pivot to center crane boom foot	3' 7-3/4"	M.	Tread width, Standard	32"
E.	Ground to center crane boom foot	5' 1-3/4"		Optional	36"
F.	Height over retractable A - frame (retracted)	11' 3-1/4"	N.	Overall width over crawlers (Extended)	
F1.	Height over retractable A - frame (raised)	17' 10-1/2"		32" Shoes	13' 10"
G.	Ground to bottom of counterweight	3' 3-1/4"		36" Shoes	14' 2"
H.	Minimum clearance under base	1' 2-1/4"	N.	Overall width over crawlers (Retracted)	
				32" Shoes	11' 0"
				36" Shoes	11' 4"