

BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
90' (27.4M) BOOM	75	37.5	6,340	8,050	60
	80	32.0	5,720	7,300	53
	85	25.3	5,170	6,640	44
	90	16.4	4,690	6,060	31
95' (29.0M) BOOM	19	80.7		54,620	99
	20	80.1		50,560	99
	25	77.0	28,790	36,610	98
	30	73.9	22,580	28,430	96
	35	70.7	18,400	23,040	95
	40	67.5	15,390	19,230	93
	45	64.2	13,120	16,390	91
	50	60.8	11,340	14,190	88
	55	57.3	9,920	12,430	85
	60	53.6	8,750	11,000	82
	65	49.8	7,770	9,810	78
	70	45.7	6,940	8,800	73
	75	41.3	6,230	7,940	68
	80	36.5	5,600	7,190	62
85	31.1	5,060	6,530	54	
90	24.6	4,570	5,950	45	
95	15.9	4,140	5,430	31	
100' (30.5M) BOOM	20	80.6		50,520	104
	25	77.7	28,740	36,560	103
	30	74.7	22,530	28,380	102
	35	71.7	18,350	22,990	100
	40	68.7	15,330	19,170	98
	45	65.6	13,060	16,330	96
	50	62.4	11,290	14,130	94
	55	59.1	9,860	12,380	91
	60	55.7	8,690	10,940	88
	65	52.2	7,720	9,750	84
	70	48.4	6,890	8,750	80
	75	44.5	6,170	7,880	75
80	40.2	5,550	7,130	70	
85	35.6	5,010	6,480	63	
90	30.3	4,520	5,900	56	
95	24.0	4,090	5,390	46	
100	15.5	3,700	4,920	32	
105' (32.0M) BOOM	21	80.5		46,910	109
	25	78.3	28,630	36,470	108
	30	75.5	22,420	28,280	107
	35	72.6	18,230	22,890	105
	40	69.7	15,220	19,070	104
45	66.8	12,950	16,230	102	

BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
80' (24.4M) BOOM	17	80.4		65,100	84
	20	78.2		50,790	83
	25	74.5		36,870	82
	30	70.8	22,880	28,700	81
	35	66.9	18,710	23,330	79
	40	63.0	15,700	19,520	76
	45	58.9	13,430	16,680	74
	50	54.6	11,660	14,490	70
	55	50.1	10,230	12,730	66
	60	45.2	9,060	11,300	62
	65	39.9	8,090	10,110	56
	70	34.0	7,250	9,100	50
	75	26.9	6,540	8,240	41
80	17.4	5,910	7,490	29	
85' (25.9M) BOOM	17	81.0		65,030	89
	20	78.9		50,710	89
	25	75.4	28,970	36,780	87
	30	71.9	22,770	28,600	86
	35	68.3	18,590	23,220	84
	40	64.7	15,590	19,410	82
	45	60.9	13,320	16,580	79
	50	57.0	11,540	14,380	76
	55	52.8	10,120	12,620	73
	60	48.5	8,950	11,190	69
	65	43.8	7,970	10,000	64
	70	38.7	7,140	8,990	58
	75	32.9	6,420	8,130	51
80	26.1	5,800	7,380	42	
85	16.8	5,250	6,720	30	
90' (27.4M) BOOM	18	80.8		58,420	94
	20	79.5		50,650	94
	25	76.3	28,900	36,710	93
	30	73.0	22,690	28,530	91
	35	69.6	18,510	23,150	90
	40	66.2	15,500	19,340	87
	45	62.7	13,230	16,500	85
	50	59.0	11,460	14,300	82
	55	55.2	10,040	12,540	79
	60	51.2	8,870	11,110	75
	65	47.0	7,890	9,920	71
70	42.5	7,060	8,910	66	

BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
60' (18.3M) BOOM	45	46.4	13,790	17,020	49
	50	39.4	12,020	14,830	43
	55	31.1	10,590	13,070	36
	60	20.1	9,420	11,640	26
65' (19.8M) BOOM	14	80.8		89,990	69
	15	79.9		76,950	69
	20	75.4		50,970	68
	25	70.8		37,070	67
	30	66.1	23,120	28,920	65
	35	61.2	18,950	23,550	62
	40	56.0	15,940	19,750	59
	45	50.5	13,680	16,920	55
	50	44.5	11,900	14,720	51
	55	37.8	10,480	12,970	45
	60	29.9	9,310	11,540	38
65	19.3	8,320	10,340	27	
70' (21.3M) BOOM	15	80.7		79,920	74
	20	76.5		50,920	73
	25	72.2		37,020	72
	30	67.9	23,050	28,850	70
	35	63.4	18,880	23,490	68
	40	58.7	15,870	19,680	65
	45	53.8	13,610	16,850	62
	50	48.5	11,830	14,650	58
	55	42.8	10,410	12,900	53
	60	36.4	9,240	11,470	47
	65	28.8	8,260	10,280	39
70	18.6	7,420	9,270	27	
75' (22.9M) BOOM	16	80.5		71,780	79
	20	77.4		50,830	78
	25	73.5		36,920	77
	30	69.4	22,940	28,750	75
	35	65.3	18,760	23,380	73
	40	61.0	15,760	19,580	71
	45	56.5	13,490	16,740	68
	50	51.8	11,720	14,540	64
	55	46.8	10,290	12,790	60
	60	41.3	9,120	11,360	55
	65	35.1	8,140	10,170	48
70	27.8	7,310	9,160	40	
75	17.9	6,590	8,290	28	

BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
115' (35.1M) BOOM	90	41.3	4,200	5,590	81
	95	37.4	3,770	5,080	75
	100	33.1	3,390	4,620	68
	105	28.2	3,040	4,200	59
	110	22.4	2,720	3,820	49
	115	14.5	2,430	3,480	34
120' (36.6M) BOOM	23	80.7	31,790	41,850	124
	25	79.7	28,370	36,230	123
	30	77.3	22,150	28,020	122
	35	74.8	17,960	22,620	121
	40	72.4	14,940	18,800	120
	45	69.8	12,670	15,950	118
	50	67.3	10,890	13,750	116
	55	64.7	9,460	11,990	114
	60	62.0	8,290	10,560	111
	65	59.2	7,310	9,360	108
	70	56.4	6,480	8,350	105
	75	53.5	5,770	7,490	102
	80	50.5	5,150	6,740	98
	85	47.3	4,610	6,090	93
	90	44.0	4,120	5,510	88
	95	40.4	3,700	5,000	83
100	36.6	3,310	4,540	77	
105	32.4	2,960	4,120	69	
110	27.6	2,650	3,750	61	
115	21.9	2,360	3,400	50	
120	14.2	2,090	3,090	35	
125' (38.1M) BOOM	24	80.6	29,890	38,330	128
	25	80.2	28,260	36,140	128
	30	77.8	22,040	27,930	127
	35	75.5	17,840	22,520	126
	40	73.1	14,830	18,700	125
	45	70.7	12,550	15,850	123
	50	68.2	10,780	13,640	121
	55	65.7	9,350	11,880	119
	60	63.2	8,180	10,440	117
	65	60.6	7,200	9,250	114
	70	57.9	6,370	8,240	111
	75	55.2	5,650	7,380	108
	80	52.3	5,030	6,630	104
	85	49.4	4,490	5,980	100
90	46.3	4,010	5,400	96	
95	43.0	3,580	4,890	90	
100	39.6	3,200	4,430	85	
105	35.8	2,850	4,010	78	

BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	SIDE FRAMES RETRACTED (POUNDS)	SIDE FRAMES EXTENDED (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
135' (41.1M) BOOM	115	34.4	2,040	3,090	81
	120	30.5	1,770	2,780	74
	125	26.0	1,530	2,490	64
	130	20.6	1,310	2,220	53
	135	13.4	1,100	1,980	36
140' (42.7M) BOOM	26	80.8	26,520	33,930	143
	30	79.2	21,770	27,670	143
	35	77.1	17,570	22,260	142
	40	74.9	14,550	18,430	140
	45	72.8	12,270	15,580	139
	50	70.7	10,490	13,370	137
	55	68.5	9,070	11,610	135
	60	66.3	7,890	10,170	133
	65	64.0	6,910	8,970	131
	70	61.7	6,080	7,960	128
	75	59.4	5,370	7,100	126
	80	57.0	4,750	6,350	122
	85	54.5	4,210	5,700	119
	90	51.9	3,720	5,120	115
	95	49.3	3,300	4,610	111
	100	46.5	2,910	4,150	107
	105	43.6	2,570	3,730	102
	110	40.6	2,250	3,360	96
	115	37.3	1,960	3,020	90
	120	33.8	1,700	2,710	83
125	29.9	1,460	2,420	75	
130	25.5	1,240	2,150	65	
135	20.2	1,030	1,910	54	
140	13.1		1,680	37	
145' (44.2M) BOOM	27	80.7	25,070	32,060	148
	30	79.5	21,660	27,580	148
	35	77.5	17,460	22,160	147
	40	75.5	14,440	18,330	146
	45	73.4	12,160	15,470	144
	50	71.4	10,380	13,260	143
	55	69.3	8,950	11,500	141
	60	67.1	7,780	10,060	139
	65	65.0	6,800	8,860	137
	70	62.8	5,970	7,850	134
	75	60.5	5,250	6,990	131
	80	58.2	4,630	6,240	128
	85	55.9	4,090	5,580	125
90	53.5	3,610	5,010	122	
95	51.0	3,180	4,490	118	
100	48.4	2,800	4,030	114	

BOOM HOIST LINE is 10 parts of .625-inch diameter 6x26, WS, RRL, P, IWRC, EIPS wire rope with a minimum breaking strength of not less than 41,200 pounds.

BOOM PENDANT SUSPENSION is 2 parts of 1.125 inch diameter MONOLAY wire rope with a minimum breaking strength of not less than 140,600 pounds.

MAIN LOAD LINE is .875-inch diameter 6x25, FW, RRL, P, IWRC, IPS high strength wire rope with a minimum breaking strength of not less than 69,200 pounds.

See separate sheet for No. 6 or No. 7HL Jib Ratings.

	MAXIMUM BOOM & JIB SELF-ERECTION DATA			
	OVER THE END		OVER THE SIDE	
	BOOM LENGTH	JIB LENGTH	BOOM LENGTH	JIB LENGTH
#6 JIB	-	-	150'	20'
	150'	40'	145'	30'
	-	-	140'	40'
#7HL JIB	-	-	150'	0'
	150'	50'	145'	30'
	-	-	140'	50'

MAXIMUM LIFTING CAPACITY - LBS.	MINIMUM PARTS OF LINE	MAXIMUM HOISTING DISTANCE*	
		MAIN - R.H.	AUX. - L.H.
100,000	6	138'	66'
98,800	5	165'	80'
79,000	4	205'	100'
59,300	3	276'	133'
39,500	2	415'	200'
19,700	1	830'	400'

* The "MAXIMUM HOISTING DISTANCE" listed above is for machines equipped with standard lift laggings. For machines equipped with other than standard lift laggings, consult factory for information.

 **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.

Combinations of boom or boom and jib with a total length exceeding 350' can be operated at full rated capacity only in wind speeds of 15 MPH or less. If lifts are to be performed in winds between 15 MPH and 25 MPH, ratings must be reduced 10%. No operation of the above combinations should be attempted in wind speeds over 25 MPH. The above limitations do not take into account loads with excessive surface area which are not restrained by tag lines.

LIFT RATINGS (cont.)

Arcan 46S Angle Chord Boom and "G-H-J" Counterweight (33,600 Lbs.)

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Duty Cycle Rating	Ft. From Boom Point	Min. Load Line
150 feet	28	80.7	23750	30340	153	153	2
	30	79.9	21570	27490	153	153	2
	35	77.9	17370	22070	152	152	2
	40	76.0	14350	18240	151	151	1
	50	72.0	10290	13170	148	148	1
80 feet	60	67.9	7680	9970	144	144	1
	66	63.7	5870	7780	140	140	1
	70	59.4	4540	6140	134	134	1

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Duty Cycle Rating	Ft. From Boom Point	Min. Load Line
150 feet cont.	90	54.9	3510	4910	128	128	1
	100	50.0	2700	3940	120	120	1
	110	44.8	2040	3150	111	111	1
	120	39.1	1490	2500	100	100	1
	130	32.5	1030	1950	86	86	1
150	140	24.6	—	1480	68	68	1
	140	12.7	—	1070	38	38	1
	150	—	—	—	—	—	—

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DUTY CYCLE RATINGS

With 46S Angle Chord Boom and "G" Counterweight (16,700 Lbs.)

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Duty Cycle Rating			Ft. From Boom Point
					Climbshel	Drumline	Magnet	
40 feet	10	80.9	81070	100000	14000	12000	11700	45
	12	77.9	59290	87100	14000	12000	11700	44
	15	73.5	42000	58080	14000	12000	11700	42
	20	65.9	27940	36950	14000	12000	11700	42
	25	57.7	20690	26830	14000	12000	11700	39
50 feet	30	48.8	16270	20880	14000	12000	11700	35
	35	38.4	13290	16980	14000	12000	11700	30
	40	24.7	11130	14180	12630	12000	11700	22
	12	80.4	59240	87150	14000	12000	11700	54
	15	76.9	41910	58050	14000	12000	11700	54
50 feet	20	70.9	27820	36870	14000	12000	11700	52
	25	64.7	20560	26720	14000	12000	11700	50
	30	58.2	16130	20750	14000	12000	11700	48
	35	51.2	13140	16030	14000	12000	11700	44
	40	43.4	10990	14050	12510	12000	11700	39
60 feet	45	34.2	9360	11970	10660	10660	10660	33
	50	22.0	8080	10360	9220	10360	9220	24
	14	80.1	46430	65380	14000	12000	11700	64
	15	79.1	41850	58030	14000	12000	11700	64
	20	74.2	27730	36810	14000	12000	11700	63
70 feet	25	69.2	20460	26640	14000	12000	11700	61
	30	63.9	16020	20660	14000	12000	11700	59
	35	58.5	13030	16730	14000	12000	11700	56
	40	52.7	10870	13940	12410	12000	11700	53
	45	46.4	9240	11860	10560	11860	10560	49
80 feet	50	39.4	7970	10250	9130	10250	9130	43
	55	31.1	6940	8970	7980	8970	7980	36
	60	20.1	6100	7910	7040	7910	7040	26
	15	80.7	41710	57950	14000	12000	11700	74
	20	76.5	27570	36600	14000	12000	11700	73
80 feet	25	72.2	20290	26490	14000	12000	11700	72
	30	67.9	15840	20500	14000	12000	11700	70
	35	63.4	12850	16560	14000	12000	11700	68
	40	58.7	10630	13770	12260	12000	11700	65
	45	53.8	9060	11690	10410	11690	10410	62
70 feet	50	48.5	7790	10080	8970	10080	8970	58
	55	42.8	6760	8790	7830	8790	7830	53
	60	36.4	5920	7740	6990	7740	6990	47
	65	28.8	5210	6860	6110	6860	6110	39
	70	18.6	4610	6120	5450	6120	5450	27
80 feet	17	80.4	34570	47050	14000	14000	14000	84
	20	78.2	27420	36550	14000	14000	14000	83
	25	74.5	20120	26340	14000	14000	14000	82
	30	70.8	15670	20350	14000	14000	14000	81
	35	66.9	12600	16400	14000	14000	14000	79
80 feet	40	63.0	10520	13610	12120	12120	12120	76
	45	58.9	8890	11530	10260	10260	10260	74
	50	54.6	7610	9910	8830	8830	8830	74
	55	50.1	6590	8620	7680	7680	7680	70
	60	45.2	5740	7570	6740	6740	6740	66
80 feet	65	39.9	5040	6700	5960	5960	5960	62
	70	34.0	4440	6000	5300	5300	5300	56
	75	26.9	3920	5320	4730	4730	4730	51
	80	17.4	3470	4760	4240	4240	4240	41
	80	—	—	—	—	—	—	29

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Duty Cycle Rating			Ft. From Boom Point
					Climbshel	Drumline	Magnet	
90 feet	18	80.8	31670	42850	14000	14000	14000	94
	20	79.5	27240	36410	14000	14000	14000	93
	25	76.3	19940	26180	14000	14000	14000	94
	30	73.0	15480	20170	14000	14000	14000	91
	35	68.6	12480	16220	14000	14000	14000	90
90 feet	40	66.2	10320	13430	11950	11950	11950	87
	45	62.6	8690	11340	10100	10100	10100	85
	50	58.0	7410	9720	8660	8660	8660	82
	55	52.2	6390	8430	7510	7510	7510	79
	60	51.2	5550	7380	6570	6570	6570	75
100 feet	65	47.0	4840	6510	5790	5790	5790	71
	70	42.5	4240	5760	5130	5130	5130	66
	75	37.5	3730	5130	4570	4570	4570	60
	80	32.0	3200	4580	4070	4070	4070	53
	85	25.3	2800	4090	3640	3640	3640	44
100 feet	90	16.4	2530	3660	3260	3260	3260	31
	20	80.6	27090	36280	14000	14000	14000	104
	25	77.7	19780	26040	14000	14000	14000	103
	30	74.7	15320	20020	14000	14000	14000	102
	35	71.7	12310	16070	14000	14000	14000	100
100 feet	40	68.7	10150	13260	11810	11810	11810	98
	45	65.6	8520	11180	9950	9950	9950	96
	50	62.4	7240	9960	8510	8510	8510	94
	55	59.1	6220	8270	7360	7360	7360	91
	60	55.7	5370	7220	6420	6420	6420	88
100 feet	65	52.2	4670	6340	5640	5640	5640	84
	70	48.4	4070	5600	4980	4980	4980	80
	75	44.5	3660	4960	4470	4470	4470	75
	80	40.2	3110	4410	3930	3930	3930	70
	85	35.6	2720	3930	3500	3500	3500	63
110 feet	90	30.3	2370	3580	3120	3120	3120	56
	95	24.0	2050	3120	2780	2780	2780	46
	100	15.5	1770	2780	2470	2470	2470	32
	21	80.9	25100	33540	14000	14000	14000	114
	25	78.8	19590	25870	14000	14000	14000	113
110 feet	30	76.1	15120	19840	14000	14000	14000	112
	35	73.4	12120	15880	14000	14000	14000	111
	40	70.7	9950	13080	11640	11640	11640	109
	45	67.9	8320	10980	9780	9780	9780	107
	50	65.1	7040	9360	8340	8340	8340	105
110 feet	55	62.2	6010	8070	7070	7070	7070	102
	60	59.2	5170	6470	5470	5470	5470	100
	65	56.1	4470	5400	4810	4810	4810	96
	70	52.9	3870	4760	4240	4240	4240	93
	75	49.6	3350	4210	3750	3750	3750	89
110 feet	80	46.0	2910	3730	3320	3320	3320	84
	85	42.3	2510	3300	2940	2940	2940	79
	90	38.3	2160	3300	2600	2600	2600	73
	95	33.9	1850	2920	2300	2300	2300	66
	100	28.8	1570	2580	2000	2000	2000	58
110 feet	105	22.9	1320	2280	2030	2030	2030	48
	110	14.8	1090	1990	1780	1780	1780	33
	110	—	—	—	—	—	—	—



LIFT RATINGS

With 46S Angle Chord Boom and "G-H-J" Counterweight (33,600 Lbs.)

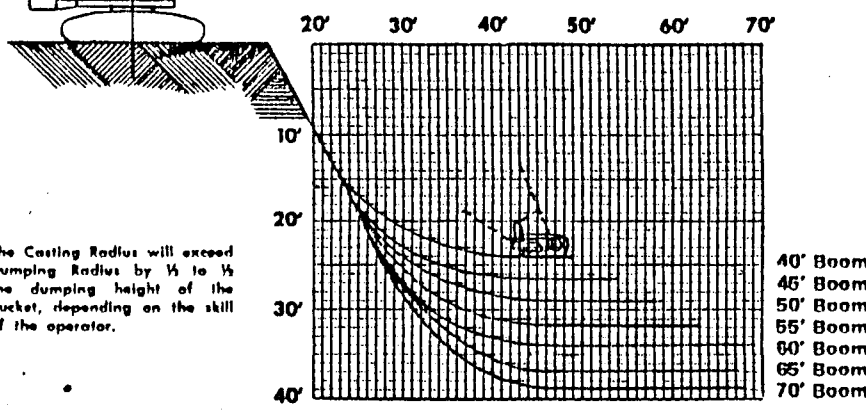
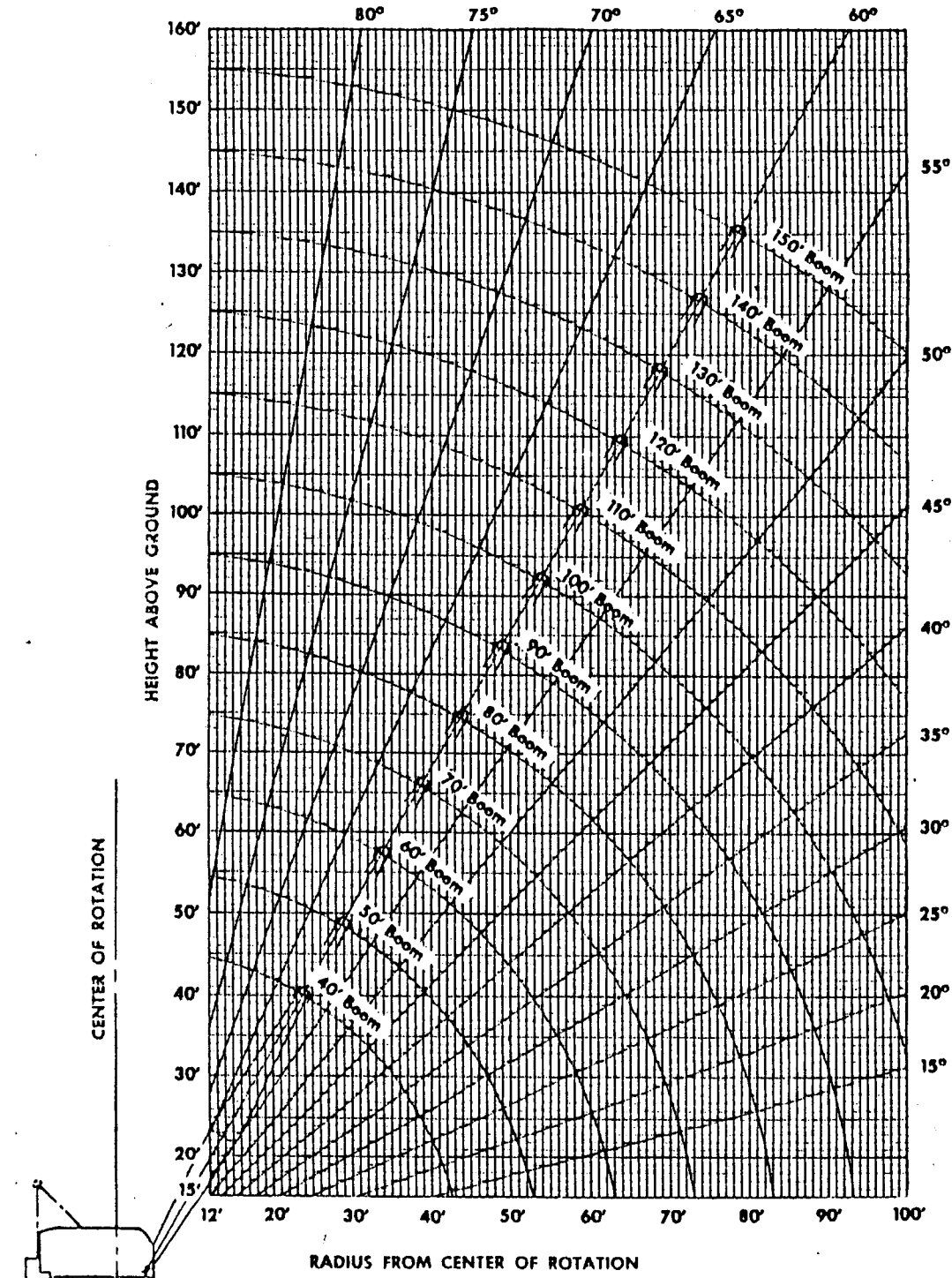
Boom Length (feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Fl. From Boom Point	Min. Load Line
40 feet	10	80.9	-	1000000	45	6
	12	77.9	-	1000000	44	6
	15	73.5	-	800050	44	5
	20	65.9	-	51190	42	3
	25	57.7	-	37350	39	2
50 feet	30	48.8	-	29220	35	2
	35	38.4	19320	23880	30	2
	40	24.7	16320	20990	22	2
	12	80.4	-	1000000	54	6
	15	76.9	-	800020	54	5
60 feet	20	70.9	-	51110	52	3
	25	64.7	-	37250	50	3
	30	58.2	-	29110	48	2
	35	51.2	19170	23750	44	2
	40	43.4	16170	19960	39	2
70 feet	50	22.0	12130	14930	24	1
	14	80.1	-	900030	64	5
	15	79.1	-	800000	64	5
	20	74.2	-	51040	63	3
	25	69.2	-	37160	61	3
80 feet	30	63.9	-	29010	59	2
	35	58.5	19060	23650	56	2
	40	52.7	16050	19850	53	2
	50	39.4	12020	14830	43	1
	60	20.1	9420	11640	26	1
90 feet	15	80.7	-	79920	74	5
	20	76.5	-	50020	73	3
	25	72.2	-	37020	72	2
	30	67.9	23050	28850	70	2
	35	63.4	18880	23490	68	2
100 feet	40	58.7	15870	19680	65	2
	50	48.5	11830	14650	58	1
	60	36.4	9240	11470	47	1
	70	18.6	7420	9270	27	1
	110 feet	17	80.4	-	65100	84
20		78.2	-	50790	83	3
25		74.5	-	36070	82	2
30		70.8	22880	28700	81	2
35		66.9	18710	23330	79	2
120 feet	40	63.0	15700	19520	76	2
	50	54.6	11660	14490	70	1
	60	45.2	9060	11300	62	1
	70	34.0	7250	9100	50	1
	80	17.4	5910	7490	29	1
130 feet	18	80.8	-	59420	94	4
	20	79.5	-	50650	94	3
	25	76.3	28900	36710	93	2
	30	73.0	22690	28530	91	2
	35	69.6	18510	23150	90	2
140 feet	40	66.2	15500	19340	87	2
	50	59.0	11460	14300	82	1
	60	51.2	8870	11110	75	1
	70	42.5	7060	8910	66	1
	80	32.0	5720	7300	53	1
90	16.4	4690	6060	31	1	

Boom Length (feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Fl. From Boom Point	Min. Load Line
100 feet	20	80.6	-	50520	104	3
	25	77.7	28740	36560	103	2
	30	74.7	22530	28380	102	2
	35	71.7	18350	22990	100	2
	40	68.7	15330	19170	98	1
110 feet	50	62.4	11290	14130	94	1
	60	55.7	8690	10940	88	1
	70	48.4	6880	8750	80	1
	80	40.2	5550	7130	70	1
	90	30.3	4520	5900	56	1
120 feet	100	15.5	3700	4920	32	1
	21	80.9	36210	46840	114	3
	25	78.8	28590	36400	113	2
	30	76.1	22330	28200	112	2
	35	73.4	18150	22800	111	2
130 feet	40	70.7	15130	18990	109	1
	50	65.1	11090	13940	105	1
	60	59.2	8490	10750	100	1
	70	52.9	6680	8550	93	1
	80	46.0	5350	6940	84	1
140 feet	90	38.3	4320	5700	73	1
	100	28.8	3500	4730	58	1
	110	14.8	2840	3930	33	1
	23	80.7	31790	40850	124	3
	25	79.7	28370	36230	123	2
120 feet	30	77.3	22150	28020	122	2
	35	74.9	17960	22620	121	2
	40	72.4	14940	18800	120	1
	50	67.3	10890	13750	116	1
	60	62.0	8200	10560	111	1
130 feet	70	56.4	6480	8350	105	1
	80	50.5	5150	6740	98	1
	90	44.0	4120	5510	88	1
	100	36.6	3310	4540	77	1
	110	27.6	2650	3750	61	1
140 feet	120	14.2	2090	3090	35	1
	24	81.0	29800	38250	134	2
	25	80.5	28170	36060	133	2
	30	78.3	21950	27840	132	2
	35	76.0	17750	22430	131	2
130 feet	40	73.8	14740	18610	130	1
	50	69.1	10680	13850	127	1
	60	64.3	8000	10350	122	1
	70	59.3	6270	8150	117	1
	80	54.0	4940	6540	110	1
140 feet	90	48.4	3910	5310	102	1
	100	42.2	3100	4320	92	1
	110	35.1	2440	3540	80	1
	120	28.5	1890	2890	63	1
	130	13.6	1420	2330	36	1
140 feet	26	80.8	26520	33930	143	2
	30	79.1	21770	27670	143	2
	35	77.1	17510	22760	142	2
	40	74.9	14550	18430	140	1
	50	70.7	10490	13370	137	1
140 feet	60	66.3	7890	10170	133	1
	70	61.7	6000	7960	128	1
	80	56.9	4750	6350	122	1
	90	51.9	3720	5120	115	1
	100	46.5	2910	4150	107	1
140 feet	110	40.6	2250	3360	96	1
	120	33.8	1700	2710	83	1
	130	25.5	1240	2150	65	1
	140	13.1	-	1680	37	1

(Continued)

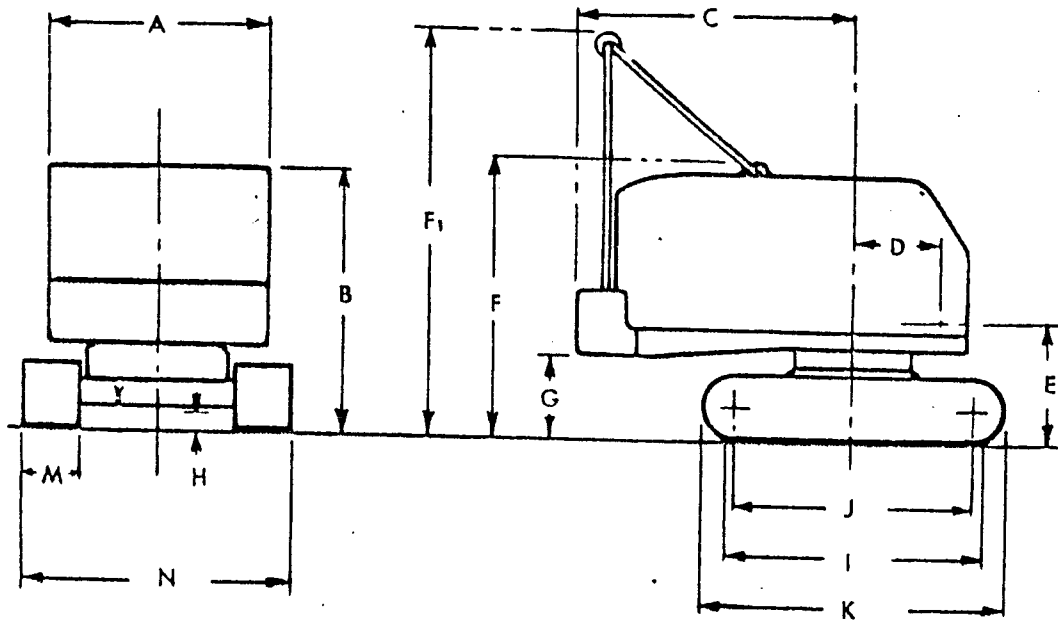
AMERICAN MODEL 5299 WORKING RANGES

BOOM ANGLE DIAGRAM



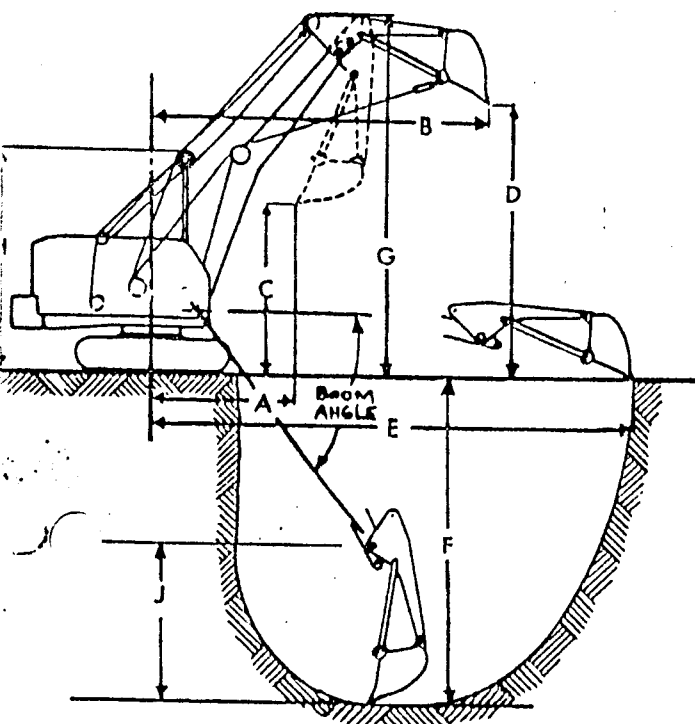
The Casting Radius will exceed Dumping Radius by $\frac{1}{4}$ to $\frac{1}{2}$ the dumping height of the bucket, depending on the skill of the operator.

MODEL 5299 GENERAL DIMENSIONS



- 1. Height of cab 9' 0"
- 2. Height over cab 10' 8-7/8"
- 3. Tailswing 12' 2"
- 4. Center of pivot to center crane boom foot . . . 3' 7-3/4"
- 5. Ground to center crane boom foot 5' 1-3/4"
- 6. Height over retractable A-frame (Retracted) 11' 3-1/4"
- 7. Height over retractable A-frame (Raised) 17' 10-1/2"
- 8. Ground to bottom of counterweight 3' 3-1/4"
- 9. Minimum clearance under base 1' 2-1/4"

- I. Crawler bearing length. 15' 10"
- J. Center to center crawler tumbler 14' 11"
- K. Overall length of crawlers 17' 6"
- M. Tread width, Standard 32"
Optional 36"
- N. Overall width over crawlers (Extended)
32" Shoes 13' 10"
36" Shoes 14' 2"
- N. Overall width over crawlers (Retracted)
32" Shoes 11' 0"
36" Shoes 11' 4"



BACKHOE WORKING RANGES

	STANDARD	LONG
Boom Length	24' 0"	26' 6"
Dipper Stock Length	8' 4 1/4"	8' 4 1/4"

	Standard Boom	Long Boom
A. Radius to Dipper beginning of dump	10' 11 1/4"	12' 8"
B. Radius to Dipper at end of dump	27' 3 1/4"	29' 1"
C. Clearance under dipper beginning of dump	13' 10"	15' 9 1/2"
D. Clearance under dipper at end of dump	22' 7"	24' 6"
E. Maximum digging radius	39' 3"	41' 9"
F. Digging depth, boom at 45° depression	24' 11 1/4"	26' 8 1/4"
Length of level floor at this depth	13' 7 1/4"	13' 7 1/4"
F. Maximum dipper reach, boom at 55° depression	27' 5 1/4"	29' 8"
G. Maximum clearance height at end of dump	29' 4"	31' 2 1/4"
H. Height over A-frame, Working	18' 5"	18' 5"
J. Sweep Radius	13' 1 1/4"	13' 1 1/4"

Actual ranges depend upon soil conditions.

CRANE RATING DATA

and ratings are in pounds and do not exceed 75% of lipping with crane standing level on firm uniformly supporting surface. Clamshell, dragline, and magnet ratings are in accordance with recommended industry standards and should not exceed the rating shown. Safe loads depend on ground conditions, boom length, radius of operation, and proper handling, all of which must be taken into consideration by user. Blocks, slings, buckets, and other load carrying devices are considered part of the load. Retractable A-frame must be fully raised position for all ratings.

Lifting is approved only in those areas for which ratings are shown in the rating chart. Ratings in shaded areas are based on structural limitations rather than stability.

"Radius in feet" is the horizontal distance at crane base level from center pin to a vertical line through the center of gravity of the suspended load. "Min. Load Line" pertains to Lift Rating only.

Boom suspension line is 5/8 inch diameter with minimum breaking strength of 41,200 lbs. Boom suspension pendants are 1-1/8 inch diameter with minimum breaking strength of 140,600 lbs.

Maximum boom length is 150 ft. for lift service, 110 ft. for clamshell, and 70 ft. for dragline or magnet. Boom lengths and ratings available in 5 ft. increments.

Designed and rated to comply with ANSI Code B30.5

LOAD HOISTING DATA*

Maximum Lifting Capacity - Lbs.	Minimum Pts. of Line	Maximum Hoisting Distance - Ft.	
		Main - R.H.	Auxiliary - L.H.
100,000	6	85'	65'
98,500	5	102'	78'
79,000	4	128'	98'
59,300	3	170'	130'
39,500	2	256'	196'
19,700	1	512'	392'

*With controlled load lowering on one drum. Main load line 7/8 inch diameter with minimum breaking strength of 69,200 lbs.

46S BOOM COMPOSITION

Boom Length in Feet	20 Ft. 46S Inner	10 Ft. 46S Center	20 Ft. 46S Center	40 Ft. 46S Center	20 Ft. 46S Outer
40	1	-	-	-	1
50	1	1	-	-	1
60	1	-	1	-	1
70	1	1	1	-	1
80	1	-	-	1	1
90	1	1	-	1	1
100	1	-	-	1	1
110	1	1	1	1	1
120	1	-	-	2	1
130	1	1	-	2	1
140	1	-	-	2	1
150	1	1	1	2	1

BOOM AND JIB ERECTION*

Boom Length	Maximum Jib Length	
	No. 6	No. 7HL
150'	40'	40'

*Self-erecting over the rear with "G-H-J" Counterweight.

PERFORMANCE

TRAVEL SPEED	1.0 MPH
FRICTION SWING	3.5 RPM
HYDROSTATIC SWING	0 to 3.75 RPM
SINGLE LINE SPEED:	
Backhoe, Magnet - Hoist	200 FPM
Crane, Clam, Drag - Hoist	165 FPM
Backhoe, Drag - Pull in	140 FPM
Third Drum	212 FPM
SINGLE LINE PULL:	
Backhoe, Magnet - Hoist	16,600 lbs. SLP
Crane, Clam, Drag - Hoist	20,000 lbs. SLP
Backhoe, Drag - Pull in	23,100 lbs. SLP
Third Drum	15,000 lbs. SLP

Performance figures are based on machine equipped with standard engine.

WEIGHTS

5299 Crane with 40 ft. boom	104,200 lbs.
Counterweight	33,600 lbs.
Boom Outer	2,425 lbs.
Boom Inner	1,820 lbs.
Side Frames with 32" shoes (2)	20,300 lbs.
Crawler Axles (2)	4,800 lbs.
Axle extensions and torque tubes	1,500 lbs.
50 ton crane block	1,200 lbs.

GROUND PRESSURES:

	32" Shoes	36" Shoes
Crane w/40' boom	8.56 PSI	7.65 PSI

NOTE: In accordance with varying material situations and the Company's policy of constant product improvement these specifications subject to change without notice and without incurring responsibility to users.