



amhelt

500 SERIES MODEL 5299 CRAWLER CRANE WITH 46S BOOM

LIFT RATINGS

With 46S Angle Chord Lattice Boom and "S-S" Counterweight (34,500 Lb)

Boom Length	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Ft. From Boom Point	Min. Load Line
40 feet	10	80.9	—	100000	45	6
	12	77.9	—	100000	44	6
	15	73.5	—	80050	44	5
	20	65.9	—	51190	42	3
	25	57.7	—	37350	39	2
	30	48.8	—	29230	35	2
	35	38.4	19320	23880	30	2
	40	24.7	16320	20090	22	2
50 feet	12	80.4	—	100000	54	6
	15	76.9	—	80020	54	5
	20	70.9	—	51110	52	3
	25	64.7	—	37250	50	2
	30	58.2	—	29110	48	2
	35	51.2	19170	23750	44	2
	40	43.4	16170	19960	39	2
	50	22.0	12130	14930	24	1
60 feet	14	80.1	—	90030	64	5
	15	79.1	—	80000	64	5
	20	74.2	—	51040	63	3
	25	69.2	—	37160	61	2
	30	63.9	—	29010	59	2
	35	58.5	19060	23650	56	2
	40	52.7	16060	19850	53	2
	50	39.4	12020	14830	43	1
60	20.1	9420	11640	26	1	
70 feet	15	80.7	—	79920	74	5
	20	76.5	—	50920	73	3
	25	72.2	—	37020	72	2
	30	67.9	23050	28850	70	2
	35	63.4	18880	23490	68	2
	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	
80 feet	17	80.4	—	65100	84	4
	20	78.2	—	50790	83	3
	25	74.5	—	36870	82	2
	30	70.8	22880	28700	81	2
	35	66.9	18710	23330	79	2
	40	63.0	15700	19520	76	1
	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	
90 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
	40	66.2	15500	19340	87	1
	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	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Ft. 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
	50	62.4	11290	14130	94	1
	60	55.7	8690	10940	88	1
	70	48.4	6890	8750	80	1
	80	40.2	5550	7130	70	1
	90	30.3	4520	5900	56	1
	100	15.5	3700	4920	32	1
	110 feet	21	80.9	36210	46840	114
25		78.8	28550	36400	113	2
30		76.1	22330	28200	112	2
35		73.4	18150	22800	111	2
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
90		38.3	4320	5700	73	1
100		28.8	3500	4730	58	1
110		14.8	2840	3930	33	1
120 feet	23	80.7	31790	40850	124	3
	25	79.7	28370	36230	123	2
	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	8290	10560	111	1
	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
120	14.2	2090	3090	35	1	
130 feet	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
	40	73.8	14740	18610	130	1
	50	69.1	10680	13550	127	1
	60	64.3	8080	10350	122	1
	70	59.3	6270	8150	117	1
	80	54.0	4940	6540	110	1
	90	48.4	3910	5310	102	1
	100	42.2	3100	4330	92	1
	110	35.1	2440	3540	80	1
120	26.5	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	17570	22260	142	2
	40	74.9	14550	18430	140	1
	50	70.7	10490	13370	137	1
	60	66.3	7890	10170	133	1
	70	61.7	6080	7960	128	1
	80	56.9	4750	6350	122	1
	90	51.9	3720	5120	115	1
	100	46.5	2910	4150	107	1
	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)

FORM NO. 5299-CR-3

Courtesy of CraneMarket

LIFT RATINGS (cont.)

With 46S Angle Chord Boom and "S-S" Counterweight (34,500 Lb)

Boom Length	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Ft. From Boom Point	Min. Load Line
150 feet	28	80.7	23750	30340	153	2
	30	79.9	21570	27490	153	2
	35	77.9	17370	22070	152	2
	40	76.0	14350	18240	151	1
	50	72.0	10290	13170	148	1
	60	67.9	7680	9970	144	1
	70	63.7	5870	7760	140	1
	80	59.4	4540	6140	134	1

Boom Length	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Ft. From Boom Point	Min. Load Line
150 feet cont.	90	54.9	3510	4910	128	1
	100	50.0	2700	3940	120	1
	110	44.8	2040	3150	111	1
	120	39.1	1490	2500	100	1
	130	32.6	1030	1950	86	1
	140	24.6	-	1480	68	1
	150	12.7	-	1070	38	1

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DUTY CYCLE RATINGS

With 46S Angle Chord Boom and "K-K" Counterweight (16,000 Lb)

Boom Length	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Duty Cycle Rating			Ft. From Boom Point
					Clamshell	Dragline	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	44
	20	65.9	27940	36950	14000	12000	11700	42
	25	57.7	20690	26830	14000	12000	11700	39
	30	48.8	16270	20880	14000	12000	11700	35
	35	38.4	13290	16960	14000	12000	11700	30
	40	24.7	11130	14180	12630	12000	11700	22
50 feet	12	80.4	59240	87150	14000	12000	11700	54
	15	76.9	41910	58050	14000	12000	11700	54
	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	16830	14000	12000	11700	44
	40	43.4	10990	14050	12510	12000	11700	39
	45	34.2	9360	11970	10660	11970	10660	33
50	22.0	8080	10360	9220	10360	9220	24	
60 feet	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
	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
	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	
70 feet	15	80.7	41710	57950	14000	12000	11700	74
	20	76.5	27570	36680	14000	12000	11700	73
	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	10690	13770	12260	12000	11700	65
	45	53.8	9060	11690	10410	11690	10410	62
	50	48.5	7790	10080	8970	10080	8970	58
	55	42.8	6760	8790	7830	8790	7830	53
	60	36.4	5920	7740	6890	7740	6890	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	-	-	84
	20	78.2	27420	36550	14000	-	-	83
	25	74.5	20120	26340	14000	-	-	82
	30	70.8	15670	20350	14000	-	-	81
	35	66.9	12680	16400	14000	-	-	79
	40	63.0	10520	13610	12120	-	-	76
	45	58.9	8890	11530	10260	-	-	74
	50	54.6	7610	9910	8830	-	-	70
	55	50.1	6590	8620	7680	-	-	66
	60	45.2	5740	7570	6740	-	-	62
	65	39.9	5040	6700	5960	-	-	56
	70	34.0	4440	5950	5300	-	-	41
	75	26.9	3920	5320	4730	-	-	41
80	17.4	3470	4760	4240	-	-	29	

Boom Length	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Duty Cycle Ratings			Ft. From Boom Point
					Clamshell	Dragline	Magnet	
90 feet	18	80.8	31670	42850	14000	-	-	94
	20	79.5	27240	36410	14000	-	-	94
	25	76.3	19940	26180	14000	-	-	93
	30	73.0	15480	20170	14000	-	-	91
	35	69.6	12480	16220	14000	-	-	90
	40	66.2	10320	13430	11950	-	-	87
	45	62.6	8690	11340	10100	-	-	85
	50	59.0	7410	9720	8660	-	-	82
	55	55.2	6390	8430	7510	-	-	79
	60	51.2	5550	7380	6570	-	-	75
	65	47.0	4840	6510	5790	-	-	71
	70	42.5	4240	5760	5130	-	-	66
	75	37.5	3730	5130	4570	-	-	60
	80	32.0	3280	4580	4070	-	-	53
	85	25.3	2880	4090	3640	-	-	44
90	16.4	2530	3660	3260	-	-	31	
100 feet	20	80.6	27090	36280	14000	-	-	104
	25	77.7	19780	26040	14000	-	-	103
	30	74.7	15320	20020	14000	-	-	102
	35	71.7	12310	16070	14000	-	-	100
	40	68.7	10150	13260	11810	-	-	98
	45	65.6	8520	11180	9950	-	-	96
	50	62.4	7240	9560	8510	-	-	94
	55	59.1	6220	8270	7360	-	-	91
	60	55.7	5370	7220	6420	-	-	88
	65	52.2	4670	6340	5640	-	-	84
	70	48.4	4070	5600	4980	-	-	80
	75	44.5	3560	4960	4420	-	-	75
	80	40.2	3110	4410	3930	-	-	70
	85	35.6	2720	3930	3500	-	-	63
	90	30.3	2370	3500	3120	-	-	56
95	24.0	2050	3120	2780	-	-	46	
100	15.5	1770	2780	2470	-	-	32	
110 feet	21	80.9	25100	33540	14000	-	-	114
	25	78.8	19590	25870	14000	-	-	113
	30	76.1	15120	19840	14000	-	-	112
	35	73.4	12120	15880	14000	-	-	111
	40	70.7	9950	13080	11640	-	-	109
	45	67.9	8320	10980	9780	-	-	107
	50	65.1	7040	9360	8340	-	-	105
	55	62.2	6010	8070	7190	-	-	102
	60	59.2	5170	7020	6250	-	-	100
	65	56.1	4470	6140	5470	-	-	96
	70	52.9	3870	5400	4810	-	-	93
	75	49.6	3350	4760	4240	-	-	89
	80	46.0	2910	4210	3750	-	-	84
	85	42.3	2510	3730	3320	-	-	79
	90	38.3	2160	3300	2940	-	-	73
95	33.9	1850	2920	2600	-	-	66	
100	28.8	1570	2580	2300	-	-	58	
105	22.9	1320	2280	2030	-	-	48	
110	14.8	1090	1990	1780	-	-	33	

5299.15 5299.16 5299.17 5299.18

CRANE RATING DATA

Load ratings are in pounds and do not exceed 75% of the load which would cause tipping 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 lb. Boom suspension pendants are 1-1/8 inch diameter with minimum breaking strength of 140,600 lb.

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 In Pounds	Minimum Parts of Load Line	Maximum Hoisting Distance		
		RH Drum With Controlled Load Lowering	LH Drum With Indep. Controlled Load Lowering	LH Drum Without Controlled Load Lowering
100,000	6	86 ft.	50 ft.	66 ft.
98,850	5	103 ft.	60 ft.	79 ft.
79,080	4	129 ft.	75 ft.	99 ft.
59,310	3	172 ft.	101 ft.	132 ft.
39,540	2	258 ft.	151 ft.	198 ft.
19,770	1	517 ft.	303 ft.	396 ft.

Based on 7/8" IPS Rope

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	1
110	1	1	1	1	1
120	1	—	—	2	1
130	1	1	—	2	1
140	1	—	1	2	1
150	1	1	1	2	1

BOOM AND JIB ERECTION*

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

*Self-erecting over the rear with "S-S" Counterweight.

PERFORMANCE

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

Performance figures are based on machine equipped with standard engine.

WEIGHTS

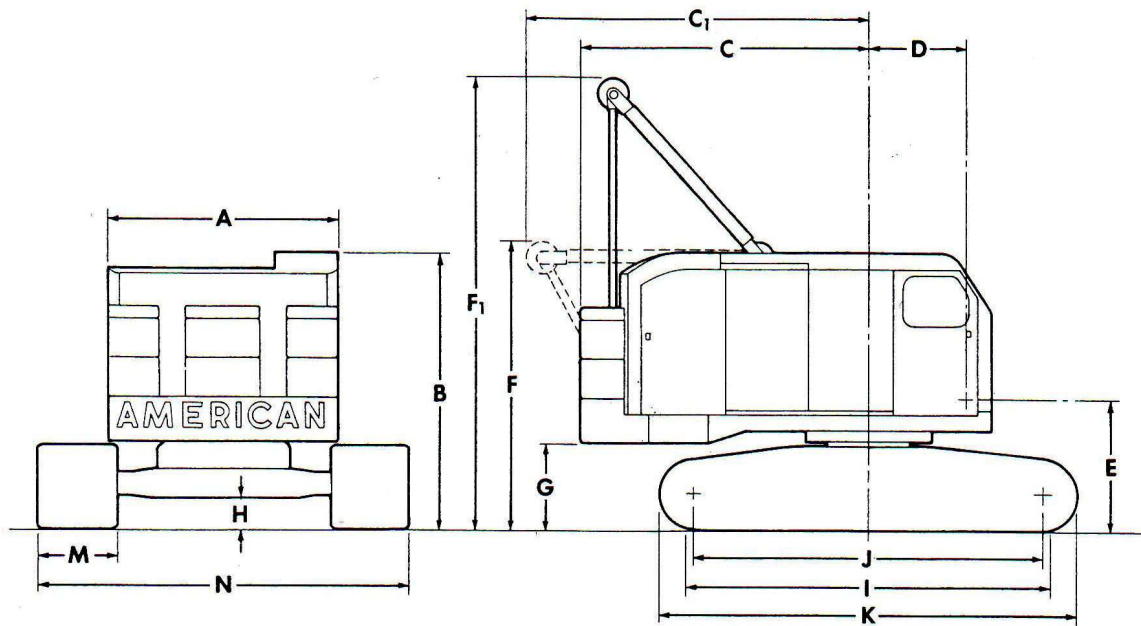
5299 Crane with 40 ft. boom	104,200 lb
Counterweight	34,500 lb
Boom Outer	2,425 lb
Boom Inner	1,820 lb.
Side Frames with 32" shoes (2)	20,300 lb
Crawler Axles (2)	4,800 lb
Axle extensions and torque tubes	1,500 lb
50 ton crane block	1,200 lb

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 units previously sold.

MODEL 5299 CRAWLER CRANE

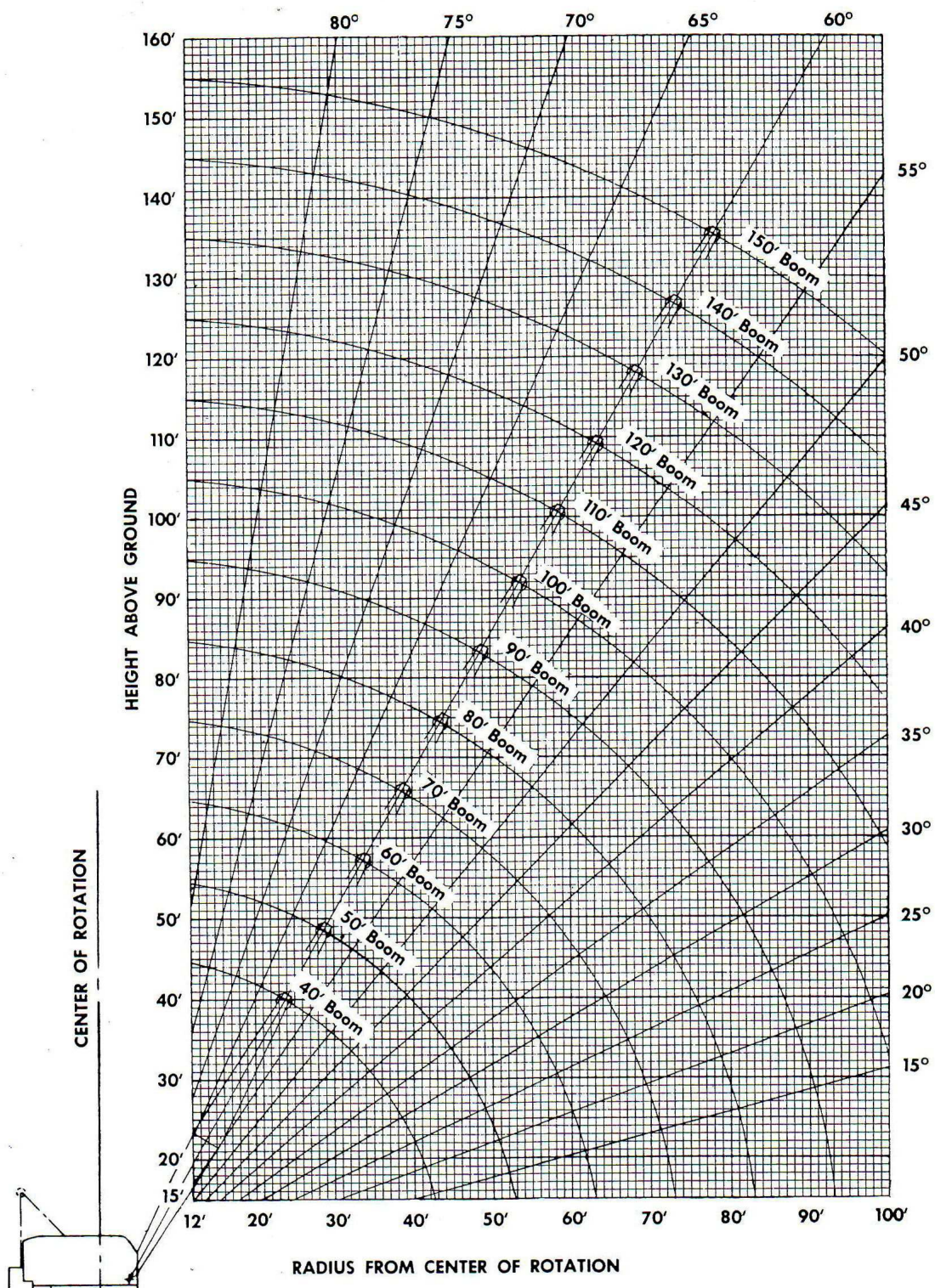


GENERAL DIMENSIONS

A. Width of cab	9' 0"	H. Minimum clearance under base	1' 2-1/4"
B. Height over cab	10' 8-7/8"	I. Crawler bearing length	15' 10"
C. Tailswing	12' 1"	J. Center to center crawler tumbler	14' 11"
C ₁ . Tailswing with A-frame lowered	13' 8-1/2"	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)	
F ₁ . 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"
		N. Overall width over crawlers (Retracted)	
		32" Shoes	11' 0"
		36" Shoes	11' 4"

AMERICAN MODEL 5299 WORKING RANGES

BOOM ANGLE DIAGRAM



The Casting Radius will exceed Dumping Radius by 1/3 to 1/2 the dumping height of the bucket, depending on the skill of the operator.

DRAGLINE DIGGING DEPTH

