

AMERICAN



American 599C

LIFT RATINGS

With 46S Angle Chord Boom and "D-E-F" Counterweight (20,400 Lbs.)

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Ft. From Boom Point	Min. Load Line
40 feet	10	80.9	80000	80000	45	6
	12	77.9	62790	80000	44	6
	15	73.5	44480	61280	44	5
	20	65.9	29580	38980	42	3
	25	57.7	21910	28290	39	2
	30	48.8	17220	22010	35	2
	35	38.4	14060	17880	30	2
40	24.7	11780	14950	22	2	
50 feet	12	80.4	62740	80000	54	6
	15	76.9	44390	61240	54	5
	20	70.9	29460	38890	52	3
	25	64.7	21770	28180	50	2
	30	58.2	17080	21890	48	2
	35	51.2	13910	17740	44	2
	40	43.4	11630	14810	39	2
50	22.0	8550	10920	24	1	
60 feet	14	80.1	49170	68970	64	5
	15	79.1	44310	61220	64	5
	20	74.2	29370	38830	63	3
	25	69.2	21660	28090	61	2
	30	63.9	16960	21790	59	2
	35	58.5	13800	17640	56	2
	40	52.7	11510	14700	53	2
50	39.4	8440	10810	43	1	
60	20.1	6460	8340	26	1	
70 feet	15	80.7	44170	61130	74	5
	20	76.5	29200	38700	73	3
	25	72.2	21490	27940	72	2
	30	67.9	16790	21630	70	2
	35	63.4	13620	17480	68	2
	40	58.7	11330	14530	65	2
	50	48.5	8260	10640	58	1
60	36.4	6280	8170	47	1	
70	18.6	4900	6460	27	1	
80 feet	17	80.4	36620	49640	84	4
	20	78.2	29050	38570	83	3
	25	74.5	21330	27800	82	2
	30	70.8	16620	21470	81	2
	35	66.9	13440	17310	79	2
	40	63.0	11160	14370	76	1
	50	54.6	8080	10470	70	1
60	45.2	6110	8000	62	1	
70	34.0	4730	6300	50	1	
80	17.4	3700	5040	29	1	
90 feet	18	80.8	33550	45210	94	4
	20	79.5	28870	38420	94	3
	25	76.3	21140	27630	93	2
	30	73.0	16420	21300	91	2
	35	69.6	13250	17130	90	2
	40	66.2	10960	14180	87	1
	50	59.0	7880	10280	82	1
60	51.2	5910	7810	75	1	
70	42.5	4530	6110	66	1	
80	32.0	3510	4850	53	1	
90	16.4	2720	3890	31	1	

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Side Frames Retracted	Side Frames Extended	Ft. From Boom Point	Min. Load Line
100 feet	20	80.6	28720	38290	104	3
	25	77.7	20980	27490	103	2
	30	74.7	16260	21150	102	2
	35	71.7	13080	16970	100	2
	40	68.7	10790	14020	98	1
	50	62.4	7710	10110	94	1
	60	55.7	5740	7640	88	1
	70	48.4	4360	5940	80	1
	80	40.2	3340	4690	70	1
	90	30.3	2560	3730	56	1
100	15.5	1930	2970	32	1	
110 feet	21	80.9	26620	35410	114	3
	25	78.8	20790	27320	113	2
	30	76.1	16060	20970	112	2
	35	73.4	12880	16790	111	2
	40	70.7	10590	13830	109	1
	50	65.1	7510	9920	105	1
	60	59.2	5530	7450	100	1
	70	52.9	4150	5740	93	1
	80	46.0	3140	4490	84	1
	90	38.3	2350	3530	73	1
100	28.8	1730	2770	58	1	
110	14.8	1220	2150	33	1	
120 feet	23	80.7	23210	30730	124	3
	25	79.7	20610	27150	123	2
	30	77.3	15870	20790	122	2
	35	74.9	12690	16610	121	2
	40	72.4	10390	13650	120	1
	50	67.3	7310	9730	116	1
	60	62.0	5330	7250	111	1
	70	56.4	3950	5550	105	1
	80	50.5	2940	4300	98	1
	90	44.0	2160	3340	88	1
100	36.6	1530	2580	77	1	
110	27.6	1030	1970	61	1	
120	14.2	-	1370	35	1	
130 feet	24	81.0	21650	28680	134	2
	25	80.5	20410	26980	133	2
	30	78.3	15680	20610	132	2
	35	76.0	12480	16420	131	2
	40	73.8	10190	13450	130	1
	50	69.1	7100	9530	127	1
	60	64.3	5120	7050	122	1
	70	59.3	3740	5340	117	1
	80	54.0	2730	4090	110	1
	90	48.4	1950	3130	102	1
100	42.2	1320	2380	92	1	
110	35.1	-	1710	80	1	
140 feet	26	80.8	19110	25290	143	2
	30	79.1	15500	20440	143	2
	35	77.1	12300	16240	142	2
	40	74.9	10000	13270	140	1
	50	70.7	6910	9350	137	1
	60	66.3	4930	6870	133	1
	70	61.7	3550	5150	128	1
	80	56.9	2540	3900	122	1
	90	51.9	1760	2950	115	1
	100	46.5	1130	2190	107	1
110	40.6	-	1470	96	1	

(Continued)

FORM NO. 599-CR-1

Courtesy of CraneMarket

CRANE RATING DATA

Load ratings are in pounds and do not exceed 75% of 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 35,800 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 magent. 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.
80,000	6	134'	105'
72,500	5	160'	126'
58,000	4	200'	157'
43,500	3	265'	210'
29,000	2	400'	314'
14,500	1	800'	630'

*With controlled load lowering on one drum. Main load line 3/4 inch diameter with minimum breaking strength of 51,200 lbs.

BOOM AND JIB ERECTION*

Boom Length	Maximum Jib Length	
	No. 6	No. 7HL
150'	0'	0'
140'	0'	0'
130'	30'	30'
125'	40'	40'
120'	40'	50'

*self-erecting over the rear with "D-E-F" Counterweight.

PERFORMANCE

TRAVEL SPEED	1.0 MPH
FRICITION 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.

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

WEIGHTS

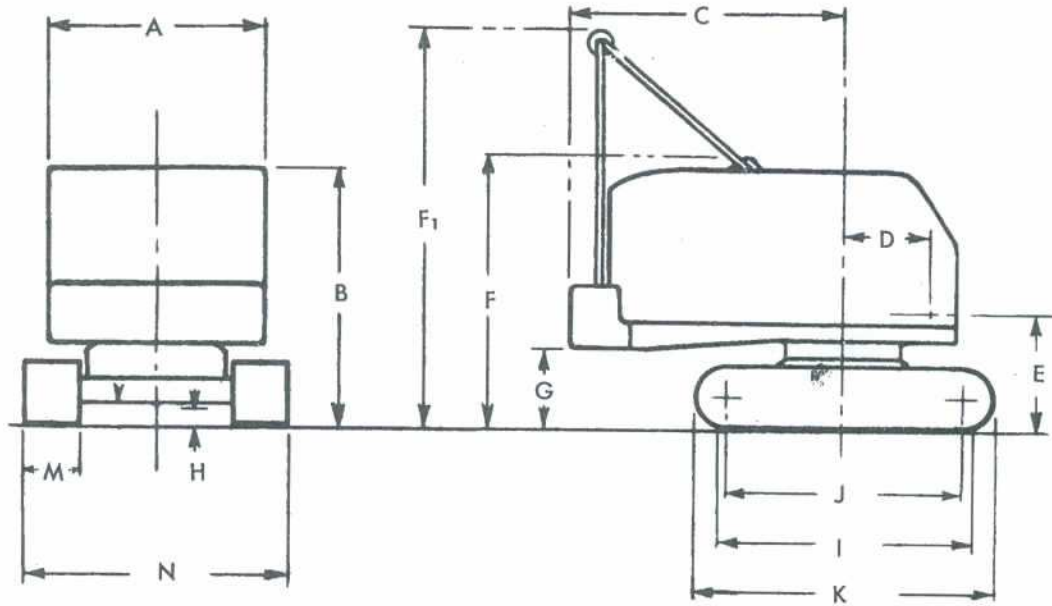
599C Crane with 40 ft. boom	87,765 lbs.
Counterweight	20,500 lbs.
Boom Outer	2,425 lbs.
Boom Inner	1,820 lbs.
Side Frames with 32" shoes (2)	18,800 lbs.
Crawler Axles (2)	4,800 lbs.
Axle extensions and torque tubes	1,500 lbs.
40 ton crane block	920 lbs.

GROUND PRESSURES:

	28" Shoes	32" Shoes	36" Shoes
Crane w/40' boom	9.1 PSI	7.96 PSI	7.08 PSI

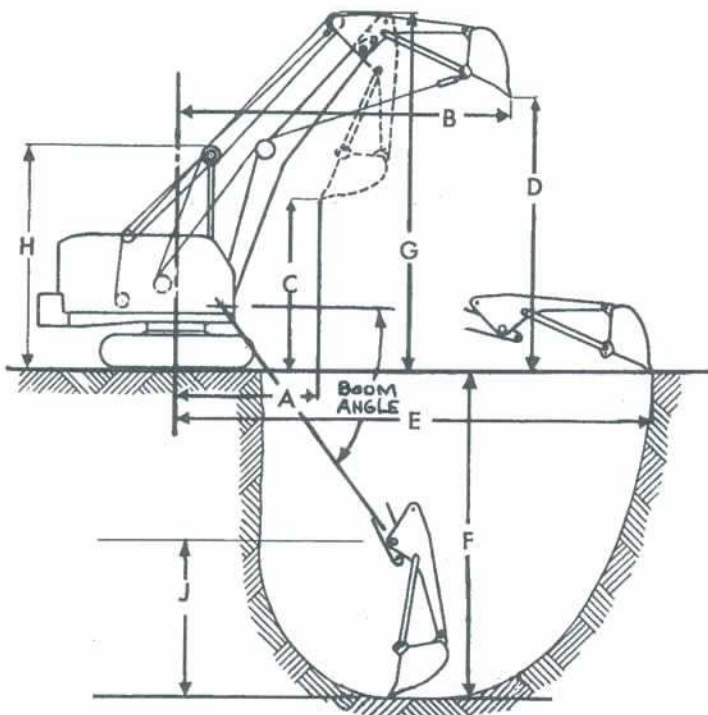
NOTE: In accordance with varying material situations and the Company's policy of constant product improvement these specifications subject to change without notice and without incurring responsibility to units previously sold.

MODEL 599C GENERAL DIMENSIONS



A. Width of cab	9' 0"
B. Height over cab	10' 8-7/8"
C. Tailswing	11' 2"
D. Center of pivot to center crane boom foot	3' 7-3/4"
E. Ground to center crane boom foot	5' 1-3/4"
F. Height over retractable A-frame (Retracted)	11' 1-3/4"
F ₁ . Height over retractable A-frame (Raised)	16' 9-3/4"
G. Ground to bottom of counterweight	3' 4-7/8"
H. Minimum clearance under base	1' 2-1/4"
I. Crawler bearing length.	14' 4"

J. Center to center crawler tumbler	13' 5"
K. Overall length of crawlers	16' 0"
M. Tread width, Standard	32"
Optional	28"
Optional	36"
N. Overall width over crawlers (Extended)	
28" Shoes	13' 6"
32" Shoes	13' 10"
36" Shoes	14' 2"
N. Overall width over crawlers (Retracted)	
28" Shoes	10' 8"
32" Shoes	11' 0"
36" Shoes	11' 4"



BACKHOE WORKING RANGES

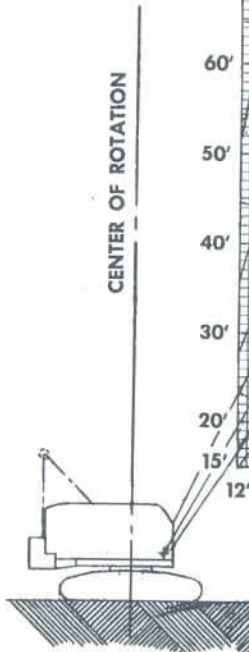
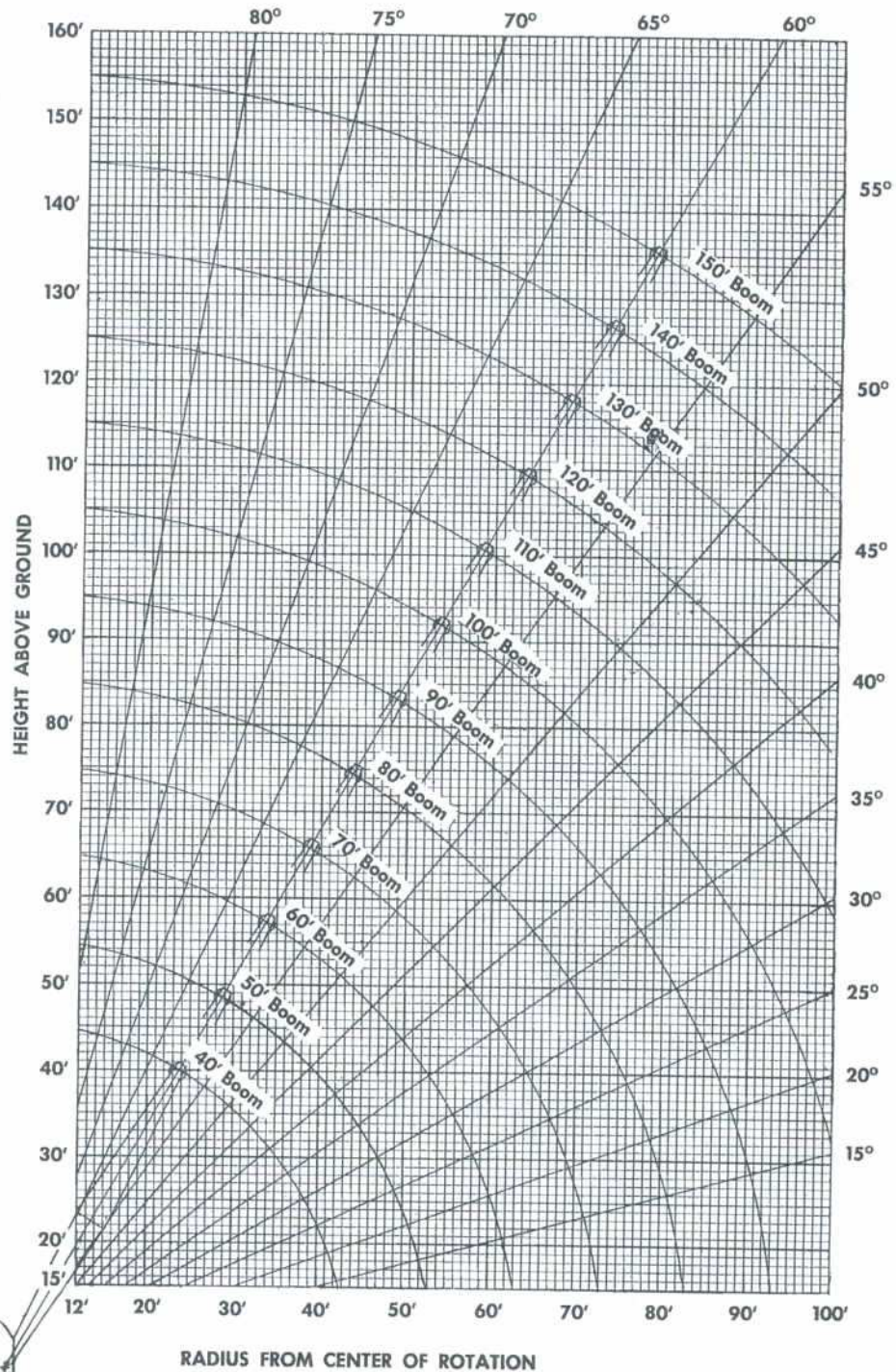
	STANDARD	LONG
Boom Length	24' 0"	26' 6"
Dipper Stock Length	8' 4 3/4"	8' 4 3/4"

	Standard Boom	Long Boom
A. Radius to Dipper beginning of dump	10' 11 1/2"	12' 8"
B. Radius to Dipper at end of dump	27' 3 1/2"	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 1/2"	26' 8 1/2"
Length of level floor at this depth	13' 7 1/2"	13' 7 1/2"
F ₁ . Maximum dipper reach, boom at 55° depression	27' 5 1/2"	29' 8"
G. Maximum clearance height at end of dump	29' 4"	31' 2 1/2"
H. Height over A-frame, Working	18' 5"	18' 5"
J. Sweep Radius	13' 1 1/2"	13' 1 1/2"

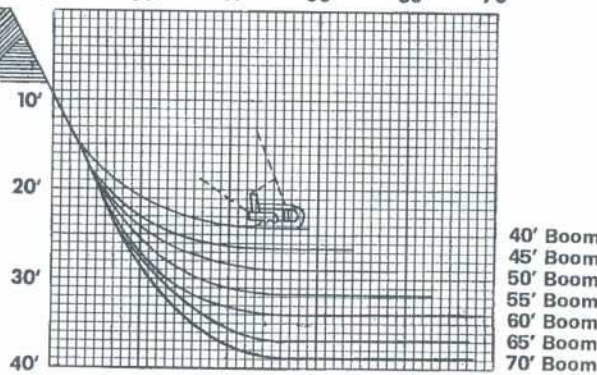
Actual ranges depend upon soil conditions.

AMERICAN MODEL 599C WORKING RANGES

BOOM ANGLE DIAGRAM



DRAGLINE DIGGING DEPTH



The Casting Radius will exceed Dumping Radius by $\frac{1}{8}$ to $\frac{1}{2}$ the dumping height of the bucket, depending on the skill of the operator.



Service

IDENTIFIES YOUR AMERICAN DISTRIBUTOR

Carrying a complete inventory of parts, his factory trained servicemen will keep your AMERICAN in top shape at all times! Wherever you are, he's no further away than your telephone.

Remember, too, that your AMERICAN Distributor can provide you with application assistance on many of your jobs, helping you get maximum profits out of your machine.

Call him today, and get the details on the complete line of AMERICAN truck and crawler cranes.



SOLD & SERVICED BY:



**AMERICAN HOIST
& DERRICK COMPANY**
ST. PAUL, MINNESOTA 55107