

TOWER CRANE CAPACITIES

4600

SERIES-4

234' TO 254' NO. 27B TOWER
BOOM NO. 22B WITH LIGHT TAPERED TOP
123,000 LB. COUNTERWEIGHT

LIFTING CAPACITIES: Capacities for various tower heights, boom lengths and operating radii are for freely suspended loads and do not exceed **75%** of a static tipping load. **CAPACITIES SHOWN BY SHADED AREAS ARE BASED ON STRUCTURAL COMPETENCE.**

Capacities are shown in pounds. Weight of jib, (see chart A) all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is considered part of the 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.

CAPACITY INDICATED BY "B" REPRESENTS A BOOM POSITION WHICH REQUIRES LOAD HANDLING DEVICES OF AT LEAST 3,000 POUNDS TO PREVENT BOOM FROM COMING BACK AGAINST BOOM STOP AS LOAD IS RELEASED.

OPERATING CONDITIONS: Machine to operate on a firm surface with roller path level within a tolerance of 1/2" in 10 feet and properly supported, and be rigged in accordance with and under conditions referred to in rigging drawing No. 65156 and No. 183226 or No. 66235 and No. 184667, load line specification chart No. 6517-A and chart No. 7264-A for recommended procedure for operating under various wind conditions. **CAUTION: OUTSIDE ASSIST REQUIRED. SEE CHART NO. 6580 FOR TOWER AND BOOM RAISING PROCEDURE.**

Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation.

OPERATING RADIUS: Operating radius is the horizontal distance from the axis of rotation to the center of vertical hoist line or load block. Add 1.2' to boom point radius for radius of sheave when using single part of hoist line.

Boom angle is the angle between horizontal and centerline of boom butt and inserts and is an indication of operating radius.

CAUTION
OUTSIDE ASSIST REQUIRED

CRAWLER

In all cases, operating radius shall govern capacity.

BOOM POINT ELEVATION: Boom point elevation, in feet, is the vertical distance from ground level to centerline of boom point shaft. Distances are given for 254' tower. Deduct 10' for each 10' reduction of tower height.

MACHINE EQUIPMENT: Machine equipped with 30'5" crawlers, 60" treads, 33' retractable gantry, 12 part boom hoist reeving, four 1-1/2" tower pendants, four 1-3/8" boom pendants, and 123,000 lb. counterweight (120,000 lb. with counterweight assembly No. 49667).

HOIST REEVEING FOR MAIN LOAD BLOCK			
No. Parts of Line	1	2	3
Maximum Load — Lbs.	40,000	80,000	120,000

LOAD AND WHIP LINE SPECIFICATIONS	
LOAD LINE: 1-1/4" — 6x31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 79.9 Ton. Approx. Weight Per Ft. in lbs. 2.89.	
WHIP LINE: 1-1/4" — 6x31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 79.9 Ton. Maximum Load — 40,000 lbs. Per Line. Approx. Weight Per Ft. in lbs. 2.89.	

(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
JIB LENGTH	JIB NO. 123
30'	2,800 Lb.
40'	3,600 Lb.
50'	4,400 Lb.
60'	5,200 Lb.
Load block, hook & weight ball on ground until tower is in vertical position and boom is in operating range. Jib to be attached with tower in vertical position and with boom in a position which will allow jib to be attached.	

For jib capacities, consult jib chart.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
100	35	73.4	359.2	108,300B	120	40	73.8	378.6	95,400B	140	45	74.0	398.0	82,000	160	55	72.4	415.9	67,500
	40	70.4	357.6	106,600B		45	71.3	377.0	88,500B		50	71.9	396.5	77,800		60	70.5	414.2	64,200
	45	67.4	355.7	99,600B		50	68.7	375.2	86,000		55	69.7	394.7	72,600		65	68.6	412.3	60,500
	50	64.2	353.4	93,400B		55	66.2	373.1	80,100		60	67.5	392.8	71,000		70	66.6	410.2	59,400
	55	61.0	350.8	87,600B		60	63.5	370.8	75,400		65	65.3	390.6	65,900		75	64.7	408.0	55,000
110	60	57.7	347.9	82,400	130	65	60.8	368.2	71,000	150	70	63.0	388.2	62,300	170	80	62.7	405.5	52,200
	65	54.2	344.5	77,000		70	58.1	365.2	66,900		75	60.7	385.5	58,900		85	60.6	402.8	49,600
	70	50.6	340.6	72,400		75	55.2	361.9	63,100		80	58.3	382.5	55,800		90	58.5	399.9	47,100
	75	46.8	336.2	68,100		80	52.2	358.2	59,500		85	55.9	379.3	52,800		95	56.4	396.7	44,800
	80	42.7	331.2	64,300		85	49.1	354.1	56,300		90	53.4	375.8	50,100		100	54.2	393.2	42,700
120	85	38.3	325.3	60,800	140	90	45.9	349.6	53,300	160	95	50.8	371.9	47,500	180	105	52.0	389.5	40,600
	90	33.4	318.4	57,700		95	42.5	344.4	50,500		100	48.1	367.6	45,100		110	49.7	385.4	38,700
	95	27.7	309.9	55,100		100	38.8	338.6	48,100		105	45.3	362.9	43,000		115	47.3	381.0	37,000
	100	20.8	298.9	52,900		105	34.8	331.9	45,800		110	42.3	357.7	41,000		120	44.8	376.2	35,400
						110	30.4	324.1	43,900		115	39.2	351.9	39,100		125	42.2	370.9	33,900
130	40	72.3	368.2	97,900B	150	115	25.3	314.6	42,100	170	120	35.8	345.3	37,500	190	130	39.5	365.1	32,500
	45	69.5	366.4	95,300B		120	18.9	302.3	40,700		125	32.2	337.9	35,900		135	36.6	358.7	31,200
	50	66.7	364.4	88,900B		45	72.8	387.6	85,900		130	28.1	329.3	34,600		140	33.4	351.6	30,100
	55	63.8	362.1	83,500		50	70.5	385.9	79,900		135	23.4	319.0	33,400		145	30.0	343.5	29,000
	60	60.9	359.5	78,500		55	68.1	384.0	77,900		140	17.5	305.6	32,500		150	26.2	334.2	28,100
140	65	57.9	356.5	73,800	160	60	65.7	381.9	72,500	180	50	73.1	406.9	74,200	200	155	21.9	323.0	27,300
	70	54.7	353.2	69,400		65	63.3	379.5	68,300		55	71.1	405.3	70,500		160	16.4	308.5	26,600
	75	51.5	349.5	65,400		70	60.8	376.8	64,500		60	69.1	403.5	66,100					
	80	48.1	345.2	61,700		75	58.2	373.9	60,900		65	67.0	401.5	64,800					
	85	44.5	340.4	58,300		80	55.6	370.6	57,500		70	65.0	399.3	60,100					
150	90	40.6	335.0	55,200	170	85	52.9	367.0	54,400	190	75	62.8	396.8	56,900	210	125	37.8	355.4	34,800
	95	36.4	328.7	52,500		90	50.0	363.0	51,500		80	60.7	394.1	53,900		130	34.6	348.5	33,400
	100	31.8	321.3	50,000		95	47.1	358.6	48,900		85	58.4	391.2	51,200		135	31.1	340.8	32,200
	105	26.4	312.4	47,900		100	44.0	353.7	46,500		90	56.2	388.0	48,600		140	27.1	331.8	31,100
	110	19.8	300.6	46,200		105	40.7	348.2	44,200		95	53.8	384.5	46,100		145	22.6	321.0	30,100
160					180	110	37.2	342.0	42,200	200	100	51.4	380.7	43,900	220	150	16.9	307.1	29,300
						115	33.4	335.0	40,400		105	49.0	376.5	41,800					
						120	29.2	326.8	38,800		110	46.4	372.0	39,800					
						125	24.3	316.8	37,400		115	43.7	367.0	38,000					
						130	18.2	304.0	36,200		120	40.8	361.5	36,300					
170					200					220	125	37.8	355.4	34,800	240				
											130	34.6	348.5	33,400					
											135	31.1	340.8	32,200					
											140	27.1	331.8	31,100					
											145	22.6	321.0	30,100					

Capacities continued on reverse side.

SEE CONDITIONS ON REVERSE SIDE

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
170	55	73.4	426.3	64,500	200	65	73.0	454.6	51,200
	60	71.7	424.7	61,500		70	71.5	453.0	49,100
	65	69.9	423.0	56,600		75	70.0	451.3	47,000
	70	68.1	421.1	55,400		80	68.4	449.4	44,000
	75	66.2	419.0	54,600		85	66.9	447.3	43,300
	80	64.4	416.7	50,400		90	65.3	445.1	42,800
	85	62.5	414.2	48,000		95	63.7	442.7	39,500
	90	60.6	411.5	45,700		100	62.1	440.2	37,800
	95	58.6	408.5	43,500		105	60.5	437.4	36,200
	100	56.6	405.4	41,400		110	58.8	434.5	34,700
180	105	54.6	401.9	39,500	160	115	57.1	431.4	33,300
	110	52.5	398.2	37,700		120	55.4	428.1	31,900
	115	50.3	394.3	36,100		125	53.7	424.5	30,600
	120	48.1	389.9	34,500		130	51.9	420.7	29,400
	125	45.8	385.3	33,000		135	50.0	416.6	28,300
	130	43.4	380.2	31,700		140	48.1	412.3	27,200
	135	40.9	374.7	30,400		145	46.2	407.7	26,200
	140	38.3	368.6	29,300		150	44.2	402.7	25,300
	145	35.4	362.0	28,200		155	42.1	397.4	24,400
	150	32.4	354.5	27,200		160	39.9	391.6	23,600
190	155	29.1	346.1	26,300	170	165	37.6	385.4	22,800
	160	25.5	336.4	25,500		170	35.2	378.6	22,100
	165	21.2	324.9	24,800		175	32.6	371.1	21,400
	170	15.9	309.9	24,200		180	29.8	362.9	20,800
	60	72.7	435.3	58,900		185	26.8	353.6	20,200
	65	71.0	433.6	56,200		190	23.4	342.9	19,700
	70	69.3	431.8	52,100		195	19.5	330.2	19,200
	75	67.6	429.8	51,100		200	14.6	314.0	18,900
	80	65.9	427.7	50,300					
	85	64.1	425.4	46,500					
180	90	62.4	422.8	44,300	160	110	54.9	410.7	36,800
	95	60.5	420.1	42,300		115	52.9	407.0	35,200
	100	58.7	417.2	40,300		120	50.9	403.1	33,700
	105	56.8	414.0	38,500		125	48.8	398.9	32,300
	110	54.9	410.7	36,800		130	46.7	394.3	31,000
	115	52.9	407.0	35,200		135	44.4	389.4	29,700
	120	50.9	403.1	33,700		140	42.1	384.1	28,600
	125	48.8	398.9	32,300		145	39.7	378.4	27,500
	130	46.7	394.3	31,000		150	37.1	372.1	26,500
	135	44.4	389.4	29,700		155	34.4	365.1	25,600
190	140	42.1	384.1	28,600	170	160	31.5	357.4	24,800
	145	39.7	378.4	27,500		165	28.3	348.7	24,000
	150	37.1	372.1	26,500		170	24.7	338.7	23,300
	155	34.4	365.1	25,600		175	20.6	326.7	22,700
	160	31.5	357.4	24,800		180	15.4	311.3	22,200
	165	28.3	348.7	24,000		60	73.6	445.7	55,800
	170	24.7	338.7	23,300		65	72.1	444.2	53,500
	175	20.6	326.7	22,700		70	70.5	442.5	51,100
	180	15.4	311.3	22,200		75	68.9	440.6	47,600
						80	67.2	438.6	46,800
190	85	65.6	436.4	46,200	160	110	57.0	422.7	35,700
	90	63.9	434.1	42,600		115	55.2	419.4	34,200
	95	62.2	431.5	40,800		120	53.3	415.8	32,700
	100	60.5	428.8	39,000		125	51.4	411.9	31,400
	105	58.8	425.9	37,300		130	49.5	407.8	30,100
	110	57.0	422.7	35,700		135	47.4	403.3	28,900
	115	55.2	419.4	34,200		140	45.4	398.6	27,800
	120	53.3	415.8	32,700		145	43.2	393.5	26,800
	125	51.4	411.9	31,400		150	41.0	387.9	25,900
	130	49.5	407.8	30,100		155	38.6	381.9	25,000
190	135	47.4	403.3	28,900	170	160	36.1	375.4	24,100
	140	45.4	398.6	27,800		165	33.5	368.2	23,300
	145	43.2	393.5	26,800		170	30.6	360.2	22,600
	150	41.0	387.9	25,900		175	27.5	351.2	22,000
	155	38.6	381.9	25,000		180	24.1	340.8	21,400
	160	36.1	375.4	24,100		185	20.0	328.5	20,900
	165	33.5	368.2	23,300		190	15.0	312.7	20,400
	170	30.6	360.2	22,600					
	175	27.5	351.2	22,000					
	180	24.1	340.8	21,400					

Combined From Charts:
No. 6901-G 5-22-85
No. 6517-A 12-22-80