

# TOWER CRANE CAPACITIES — 3900W SERIES-2 CRAWLER

174' TO 194' NO. 9A TOWER WITH NO. 18 BOOM  
24' CRAWLERS — EXTENDED  
84,600 LB. COUNTERWEIGHT

**CAUTION**  
**OUTSIDE ASSIST REQUIRED**

**LIFTING CAPACITIES:** Capacities for various tower lengths, 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 2,000 POUNDS TO PREVENT BOOM FROM COMING BACK AGAINST BOOM STOP AS LOAD IS RELEASED.**

**OPERATING CONDITIONS:** Machine to operate on a firm surface with crawlers fully extended and roller path level within a tolerance of 1/4" in 10 ft. and properly supported, and be rigged in accordance with and under conditions referred to in rigging drawing No. 65079 or No. 66096 and load line specification chart No. 5326 and chart No. 6633-A for recommended procedure for operating under various wind conditions. **CAUTION: OUTSIDE ASSIST REQUIRED. SEE CHART NO. 6473 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 12" to boom point radius for radius of sheave when using single part hoist line.

Boom angle is the angle between horizontal and centerline of boom butt and inserts and is an indication of operating radius. 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 194' tower. Deduct 10' for each 10' reduction in tower height.

**MACHINE EQUIPMENT:** Machine equipped with 24' extendible crawlers, 48" treads, 16' retractable gantry, 10 part boom hoist reeving, four 1 1/4" tower pendants, two 1 1/4" boom pendants, two 3/8" intermediate suspension pendants as specified on rigging drawing. 1st cwt. = 43,000 lbs., 2nd cwt. = 30,000 lbs., 3rd cwt. = 11,600 lbs.

LOAD LINE SPECIFICATIONS	
LOAD LINE: 1" — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 44.9 Ton. Maximum Load per Line — 22,500 lbs. (Approx. Weight Per Ft. in lbs. 1.85)	
WHIP LINE: 1" — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 44.9 Ton. Maximum Load per Line — 22,500 lbs. (Approx. Weight Per Ft. in lbs. 1.85)	

(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
Jib Length	Jib No. 124
30'	2,000 Lbs.
40'	2,400 Lbs.
50'	2,800 Lbs.
60'	3,200 Lbs.

Load block, hook and 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:
100	35	71.9	295.9	36,500B	120	40	72.5	315.3	30,900	140	45	73.0	334.7	25,500
	40	68.9	294.1	36,200B		45	70.0	313.6	30,000		50	70.8	333.0	24,700
	45	65.8	292.0	35,000		50	67.5	311.6	29,100		55	68.6	331.2	24,000
	50	62.6	289.6	33,900		55	64.8	309.4	28,200		60	66.4	329.1	23,200
	55	59.3	286.8	31,200		60	62.2	306.9	27,400		65	64.2	326.8	22,400
110	60	55.9	283.7	28,600	130	65	59.4	304.1	25,800	150	70	61.9	324.3	21,600
	65	52.4	280.0	26,400		70	56.6	301.0	23,900		75	59.5	321.5	20,900
	70	48.7	275.9	24,700		75	53.7	297.5	22,900		80	57.1	318.4	20,000
	75	44.8	271.2	23,300		80	50.7	293.7	20,900		85	54.6	315.0	18,800
	80	40.5	265.8	22,200		85	47.5	289.3	19,800		90	52.1	311.3	17,600
120	85	35.9	259.4	21,500	140	90	44.2	284.5	18,800	160	95	49.5	307.2	16,600
	90	30.7	251.8	21,100		95	40.7	279.0	18,000		100	46.7	302.7	15,700
	95	24.5	242.3	19,800		100	36.9	272.8	17,500		105	43.8	297.8	15,000
	100	16.3	228.8	18,600		105	32.7	265.6	17,000		110	40.8	292.3	14,500
						110	28.0	257.1	16,000		115	37.5	286.1	14,000
130	35	73.6	306.3	33,600B	150	115	22.3	246.4	15,100	170	120	34.0	279.2	13,700
	40	70.9	304.7	33,400B		120	14.8	231.5	14,300		125	30.2	271.2	13,000
	45	68.1	302.9	32,400		40	73.9	325.7	28,400		130	25.8	261.8	12,400
	50	65.3	300.7	31,300		45	71.6	324.2	27,500		135	20.7	250.2	11,700
	55	62.4	298.3	30,300		50	69.3	322.4	26,700		140	13.7	234.0	11,100
140	60	59.4	295.5	28,700	160	55	66.9	320.4	25,900	180	50	72.1	343.6	21,800
	65	56.3	292.3	26,300		60	64.5	318.1	25,100		55	70.1	341.9	20,900
	70	53.1	288.8	24,400		65	62.0	315.6	24,300		60	68.1	340.0	20,100
	75	49.8	284.8	22,700		70	59.5	312.8	23,500		65	66.0	337.8	19,200
	80	46.3	280.3	21,400		75	56.9	309.7	21,800		70	63.9	335.5	18,400
150	85	42.6	275.2	20,300	180	80	54.2	306.3	20,300	200	75	61.7	332.9	17,600
	90	38.6	269.4	19,600		85	51.5	302.5	19,100		80	59.6	330.1	16,800
	95	34.2	262.6	19,100		90	48.6	298.3	18,100		85	57.3	327.1	16,000
	100	29.2	254.5	18,300		95	45.6	293.6	17,300		90	55.0	323.7	15,200
	105	23.3	244.4	17,200		100	42.4	288.5	16,400		95	52.7	320.0	14,500
160	110	15.5	230.2	16,300	200	105	39.0	282.7	16,100	220	100	50.2	316.1	13,800
						110	35.4	276.1	15,800		105	47.7	311.7	13,100
						115	31.4	268.5	14,900		110	45.0	306.9	12,500
						120	26.8	259.5	14,100		115	42.3	301.7	11,900
						125	21.4	248.3	13,300		120	39.3	295.9	11,300
170					220	130	14.3	232.8	12,600	240	125	36.2	289.5	10,700
											130	32.9	282.2	10,100
											135	29.2	273.9	9,600
											140	25.0	264.1	9,100
											145	19.9	252.0	8,700
180					240						150	13.3	235.2	8,500

Combined From Charts:  
No. 6753-B 11-28-84  
No. 5326 9-4-80