

# 77L TAPERED TIP BOOM CAPACITIES

With 68,000 Lb. "A-B" Counterweight Extended

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Outriggers Set		Fl. From Boom Point
			Over Side	Over Rear	
80 feet	18	80.3	176410	176410	86
	20	78.8	176410	176410	86
	25	75.2	165310	176410	84
	30	71.4	136940	164510	83
	35	67.6	112340	128220	81
	40	63.7	91990	104620	79
	50	55.3	67050	75980	73
	60	46.1	52300	59200	65
	70	35.0	42480	48090	53
80	19.3	35500	40220	34	
90 feet	19	80.7	176300	176300	96
	20	80.1	176300	176300	96
	25	76.8	165300	176300	95
	30	73.5	136870	164470	93
	35	70.2	112220	128120	92
	40	66.8	91820	104470	90
	50	59.6	66860	75800	85
	60	51.9	52110	59020	78
	70	43.3	42270	47890	69
80	33.0	35270	40000	56	
90	18.2	30060	34140	35	
100 feet	21	80.5	176190	176190	106
	25	78.2	165250	176190	105
	30	75.2	136750	164380	104
	35	72.2	111150	127980	102
	40	69.2	91630	104300	101
	50	62.9	66640	75600	96
	60	56.3	51900	58810	90
	70	49.1	42040	47660	83
	80	41.0	35030	39770	73
90	31.2	29800	33890	59	
100	17.3	25810	29410	37	
110 feet	22	80.8	176080	176080	116
	25	79.3	156110	176080	115
	30	76.6	133710	164230	114
	35	73.9	110480	127780	113
	40	71.2	91380	104070	111
	50	65.6	66370	75340	107
	60	59.7	51610	58530	102
	70	53.5	41740	47370	95
	80	46.7	34730	39470	87
90	39.0	29490	33710	76	
100	29.8	25530	29130	62	
110	16.4	22260	25470	38	
120 feet	24	80.6	168460	175970	125
	25	80.2	155980	174370	125
	30	77.7	133510	163340	124
	35	75.3	109360	127570	123
	40	72.8	90740	103810	122
	50	67.7	66080	75060	118
	60	62.5	51320	58250	113
	70	56.9	41430	47070	108
	80	51.0	34410	39160	100
90	44.6	29310	33420	91	
100	37.3	25240	28850	80	
110	28.5	21960	25180	64	
120	15.7	19300	22200	40	
130 feet	25	80.9	155970	164610	135
	30	78.7	133530	155220	135
	35	76.4	108950	127610	133
	40	74.2	90400	103840	132
	50	69.5	66130	75110	129
	60	64.7	51390	58330	125
	70	59.7	41510	47150	119
	80	54.5	34480	39230	113
	90	48.9	29240	33520	105
100	42.7	25340	28950	95	
110	35.8	22070	25290	83	
120	27.3	19410	22310	67	
130	15.1	17190	19840	41	

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Outriggers Set		Fl. From Boom Point
			Over Side	Over Rear	
140 feet	27	80.8	149570	156360	145
	30	79.5	127620	151550	145
	35	77.4	107850	127410	144
	40	75.3	89400	103590	142
	50	71.0	65840	74830	139
	60	66.6	51100	58040	136
	70	62.1	41200	46850	131
	80	57.4	34170	38920	125
	90	52.4	29120	33230	118
100	47.0	25030	28640	109	
110	41.1	21760	24990	99	
120	34.4	19090	22000	86	
130	26.3	16880	19530	69	
140	14.6	15000	17440	42	
150 feet	28	81.0	143310	150310	155
	30	80.2	127420	146890	155
	35	78.3	107170	127180	154
	40	76.3	88770	103340	153
	50	72.3	65540	74540	150
	60	68.3	50800	57750	146
	70	64.1	40890	46540	142
	80	59.8	33850	38610	137
	90	55.2	28800	32910	130
100	50.5	24720	28340	123	
110	45.3	21440	24670	114	
120	39.6	18770	21690	103	
130	33.2	16560	19210	89	
140	25.4	14670	17120	71	
150	14.1	13070	15330	44	
160 feet	30	80.8	127210	141300	165
	35	79.0	105990	126940	164
	40	77.2	88110	103340	163
	50	73.5	64950	74230	160
	60	69.7	50470	57430	157
	70	65.8	40550	46210	153
	80	61.8	33490	38250	148
	90	57.7	28470	32580	142
	100	53.4	24370	27990	135
110	48.7	21100	24330	127	
120	43.8	18430	21350	118	
130	38.3	16210	18870	106	
140	32.1	14320	16760	92	
150	24.6	12720	14980	74	
160	13.6	11320	13430	45	
170 feet	32	80.7	119210	133610	175
	35	79.7	105300	126680	174
	40	77.9	87460	103060	173
	50	74.5	64360	73910	171
	60	70.9	50140	57110	168
	70	67.3	40200	45870	164
	80	63.6	33130	37900	159
	90	59.8	28130	32250	154
	100	55.8	24020	27650	148
110	51.6	20750	23980	140	
120	47.2	18080	21000	132	
130	42.4	15850	18520	122	
140	37.1	13970	16420	110	
150	31.1	12360	14620	95	
160	23.8	10960	13070	76	
170	13.2	9760	11720	46	
180 feet	33	80.9	101420	101420	185
	35	80.2	101420	101420	184
	40	78.6	87270	101420	184
	50	75.4	63970	73780	181
	60	72.0	50040	57000	178
	70	68.7	40100	45760	175
	80	65.2	33030	37800	170
	90	61.6	28050	32170	165
	100	58.0	23950	27580	160
110	54.1	20680	23910	153	
120	50.1	18010	20930	145	

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Outriggers Set		Fl. From Boom Point
			Over Side	Over Rear	
180 feet cont.	130	45.8	15780	18440	136
	140	41.2	13900	16350	126
	150	36.1	12290	14550	113
	160	30.2	10900	13000	98
	170	23.2	9690	11850	78
	180	12.8	8620	10470	47
	190 feet	35	80.8	94900	94900
40		79.2	86310	94900	194
50		76.1	63410	73490	192
60		73.0	49720	56700	189
70		69.8	39770	45440	185
80		66.6	32690	37470	181
90		63.3	27720	31850	177
100		59.8	23620	27250	171
110		56.3	20340	23580	165
120	52.6	17660	20590	158	
130	48.7	15440	18110	150	
140	44.5	13550	16000	140	
150	40.0	11940	14200	129	
160	35.1	10550	12660	116	
170	29.4	9330	11300	100	
180	22.5	8270	10110	80	
190	12.5	7320	9060	48	
200 feet	36	80.9	88330	88690	205
	40	79.8	85660	88690	204
	50	76.9	62840	73190	202
	60	73.9	49200	56380	199
	70	70.9	39440	45110	196
	80	67.8	32350	37130	192
	90	64.7	27390	31520	188
	100	61.5	23280	26920	183
	110	58.2	20000	23250	177
120	54.7	17320	20250	170	
130	51.1	15090	17760	163	
140	47.4	13210	15660	154	
150	43.3	11600	13860	144	
160	39.0	10200	12310	133	
170	34.2	8980	10950	119	
180	28.7	7900	9750	103	
190	22.0	6950	8700	82	
200	12.2	6120	7760	49	
210 feet	38	80.8	81470	81470	214
	40	80.3	81470	81470	214
	50	77.5	62260	72870	212
	60	74.7	48680	56070	210
	70	71.8	39090	44770	207
	80	68.9	31990	36780	203
	90	66.0	27040	31180	199
	100	63.0	22920	26560	194
	110	59.8	19630	22880	189
120	56.6	16960	19890	182	
130	53.3	14720	17400	175	
140	49.8	12830	15290	167	
150	46.1	11220	13490	158	
160	42.2	9820	11940	148	
170	38.0	8600	10580	136	
180	33.3	7530	9380	122	
190	28.0	6580	8320	105	
200	21.4	5730	7380	84	
210	11.9	4980	6540	50	
220 feet	39	81.0	75670	75670	224
	40	80.7	75670	75670	224
	50	78.1	61690	72550	222
	60	75.4	48150	55740	220
	70	72.7	38730	44420	217
	80	69.9	31620	36420	214
	90	67.1	26690	30830	210
	100	64.3	22560	26210	205
	110	61.3	19280	22530	200
120	58.3	16590	19520	194	
130	55.2	14360	17040	188	

(continued)  
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# 77L TAPERED TIP BOOM CAPACITIES (Cont.)

With 68,000 Lb. "A-B" Counterweight Extended

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Outriggers Set		Fl. From Boom Point
			Over Side	Over Rear	
220 feet cont.	140	52.0	12470	14930	180
	150	48.6	10860	13130	172
	160	45.0	9450	11560	163
	170	41.2	8230	10200	152
	180	37.1	7160	9010	140
	190	32.5	6200	7940	125
	200	27.3	5340	7000	108
	210	20.9	4590	6160	86
	220	11.6	3920	5400	51
	230 feet	41	80.9	59510	59510
50		78.6	58810	59220	233
60		76.0	47760	55540	230
70		73.5	38390	44230	228
80		70.8	31440	36230	224
90		68.2	26530	30670	221
100		65.5	22400	26040	216
110		62.7	19120	22370	211
120		59.9	16430	19370	206
130		56.9	14200	16870	200
140		53.9	12320	14770	193
150		50.8	10700	12970	185
160		47.5	9300	11410	177
170		44.0	8070	10050	167
180		40.3	7010	8860	156
190		36.2	6050	7790	143
200		31.8	5200	6850	128
210		26.7	4430	6000	110
220	20.5	3750	5240	87	
230	11.4	3150	4560	52	
240 feet	43	80.8	55210	55210	244
	50	79.1	54690	54690	243
	60	76.6	47450	53190	241
	70	74.2	37900	43910	238
	80	71.7	31090	35890	235
	90	69.1	26200	30340	231
	100	66.6	22060	25710	227
	110	63.9	18770	22030	223
	120	61.2	16080	19020	217
	130	58.5	13850	16520	212
	140	55.6	11950	14410	205
	150	52.7	10340	12620	198
	160	49.6	8940	11050	190
	170	46.4	7720	9690	181
	180	43.0	6640	8500	171
	190	39.4	5680	7430	159
	200	35.5	4830	6480	146
	210	31.1	4060	5630	131
220	26.1	3380	4870	113	
230	20.0	2760	4180	89	
240	11.1	2200	3560	53	
250 feet	44	80.9	52030	52030	254
	50	79.5	51480	51480	253
	60	77.2	46930	50030	251
	70	74.8	37410	43570	248

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Outriggers Set		Fl. From Boom Point
			Over Side	Over Rear	
250 feet cont.	80	72.4	30620	35550	245
	90	70.0	25860	30010	242
	100	67.5	21720	25370	238
	110	65.0	18430	21680	234
	120	62.5	15730	18670	229
	130	59.9	13490	16170	223
	140	57.2	11600	14060	217
	150	54.4	9980	12250	210
	160	51.5	8580	10700	203
	170	48.5	7350	9330	194
260 feet	46	80.8	49020	49020	264
	50	79.9	48590	48590	263
	60	77.7	46970	47260	261
	70	75.4	37610	43790	259
	80	73.1	30830	35760	256
	90	70.8	26070	30220	253
	100	68.5	21930	25580	249
	110	66.1	18630	21890	245
	120	63.6	15930	18870	240
	130	61.1	13690	16370	235
270 feet	47	80.9	46030	46030	274
	50	80.3	45680	45680	273
	60	78.1	44340	44340	271
	70	76.0	37120	42770	269
	80	73.8	30340	35400	266
	90	71.5	25610	29870	263
	100	69.3	21570	25220	260
	110	67.0	18260	21530	256
	120	64.7	15560	18510	251
	130	62.3	13320	16000	246
270 feet cont.	140	59.9	11420	13890	241
	150	57.4	9790	12080	234
	160	54.8	8380	10510	228

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	Outriggers Set		Fl. From Boom Point
			Over Side	Over Rear	
270 feet cont.	170	52.2	7160	9150	220
	180	49.5	6070	7940	212
	190	46.6	5120	6870	203
	200	43.6	4260	5920	193
	210	40.4	3490	5060	182
	220	37.0	2790	4290	170
	230	33.4	2170	3590	156
	240	29.3	1590	2960	139
	250	24.6	—	2380	119
	260	18.9	—	1860	94
280 feet	49	80.9	36710	36710	283
	50	80.6	36630	36630	283
	60	78.6	35460	35460	281
	70	76.5	34110	34110	279
	80	74.4	29980	32620	277
	90	72.2	25400	29660	274
	100	70.1	21360	25010	270
	110	67.9	18050	21320	266
	120	65.6	15360	18300	262
	130	63.4	13110	15800	257
280 feet cont.	140	61.1	11220	13680	252
	150	58.7	9590	11870	246
	160	56.3	8180	10300	240
	170	53.8	6950	8930	233
	180	51.2	5880	7740	225
	190	48.5	4910	6660	217
	200	45.7	4060	5710	208
	210	42.8	3290	4860	197
	220	39.7	2580	4090	186
	230	36.4	1930	3380	173
280 feet cont.	240	32.7	—	2750	159
	250	28.7	—	2170	142
	260	24.1	—	1650	122

8450.08

## LOAD HOISTING DATA\*

Max. Lifting Capacity — Lbs.	Min. Pts. of Line	Max. Hoisting Distance — Ft.	
		Main — RH	Aux. — LH
300,000	11	81'	59'
295,420	10	89'	65'
265,880	9	99'	73'
236,340	8	112'	82'
206,790	7	128'	94'
177,250	6	149'	109'
147,710	5	179'	131'
118,170	4	224'	164'
88,620	3	299'	219'
59,080	2	448'	329'
29,540	1	897'	659'

\*Applies to all rating charts

# 77L TAPERED TIP BOOM CAPACITIES With 68,000 Lb. "A-B" Cwt. Retracted

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	OUTRIGGERS FREE		Fl. From Boom Point
			Over Side	Over Rear	
80 feet	50	55.3	18630	38740	73
	60	46.1	14730	30690	65
	70	35.0	11810	25050	53
	80	19.3	9570	20920	34
90 feet	50	59.6	18140	38450	85
	60	51.9	14290	30410	78
	70	43.3	11380	24770	69
	80	33.0	9150	20640	56
	90	18.2	8450	17540	35

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	OUTRIGGERS FREE		Fl. From Boom Point
			Over Side	Over Rear	
100 feet	50	62.9	17650	38140	96
	60	56.3	13840	30130	90
	70	49.1	10940	24480	83
	80	41.0	8720	20340	73
	90	31.2	7070	17280	59
	100	17.3	5630	14770	37

Boom Length (Feet)	Radius In Feet	Boom Angle Degrees	OUTRIGGERS FREE		Fl. From Boom Point
			Over Side	Over Rear	
110 feet	40	71.2	22810	46510	111
	50	65.6	17080	37780	107
	60	59.7	13300	29770	102
	70	53.5	10420	24130	95
	80	46.7	8220	19990	87
	90	39.0	6610	16960	76
110 feet cont.	100	29.8	5180	14450	62
	110	16.4	3990	12410	38