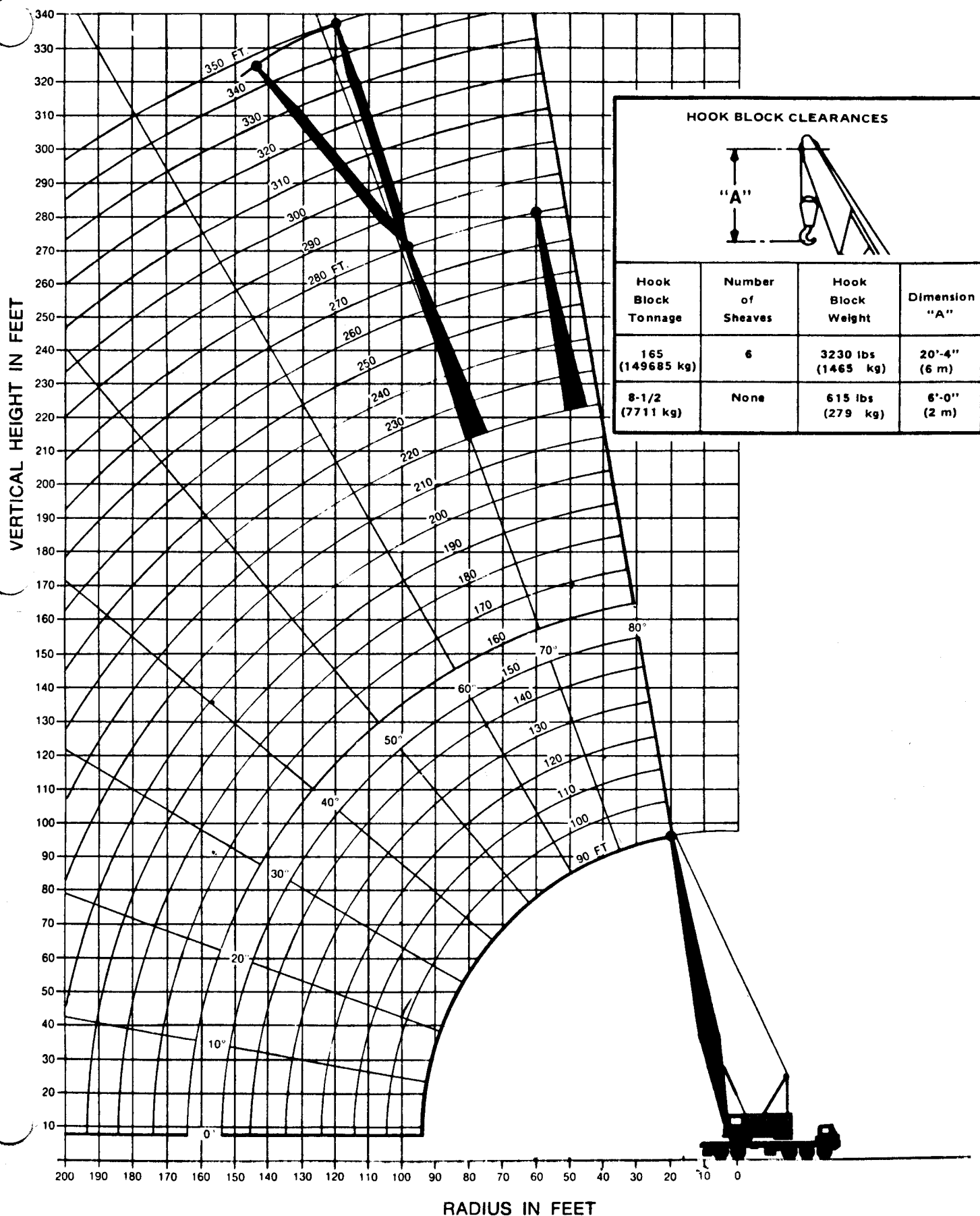




LORAIN MC1650 165-TON CAPACITY

RANGE DIAGRAM: LONG TAPERED PEAK BOOM



**LORAIN MC1650 165-TON CAPACITY****LONG TAPERED PEAK BOOM****CAPACITY CHART:**

*WITH MAXIMUM COUNTERWEIGHT 68,600 lbs (31117 kg)
& BUMPER COUNTERWEIGHT 16,000 lbs (7258 kg)*

Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
90 Ft. Boom				
20	79.6	95.5	191600*	191600*
25	76.3	94.5	166600*	166600*
30	73.0	93.1	139000*	139000*
35	69.7	91.4	118900*	118900*
40	66.2	89.4	103700*	98700
45	62.7	87.0	91800*	83400
50	59.1	84.2	81100	72000
60	51.3	77.3	63900	56100
70	42.6	67.9	52400	45700
80	32.1	54.8	44200	38300
90	16.6	32.7	38000	32700
100 Ft. Boom				
25	77.7	104.7	154400*	154400*
30	74.8	103.5	138400*	138400*
35	71.8	102.0	118400*	118400*
40	68.7	100.2	103200*	98400
45	65.6	98.1	91300*	83100
50	62.5	95.7	80800	71700
60	55.8	89.7	63600	55800
70	48.5	81.9	52100	45400
80	40.3	71.7	43800	37900
90	30.4	57.6	37600	32400
100	15.7	34.1	32800	28100
110 Ft. Boom				
25	78.9	114.9	153600*	153600*
30	76.2	113.8	137900*	137900*
35	73.5	112.5	117900*	117900*
40	70.8	110.9	102700*	98100
45	68.0	109.0	90800*	82800
50	65.1	106.8	80500	71400
60	59.2	101.5	63300	55500
70	53.0	94.8	51700	45000
80	46.1	86.3	43500	37600
90	38.4	75.3	37300	32000
100	29.0	60.3	32500	27700
110	15.0	35.5	28000	24300
120 Ft. Boom				
30	77.4	124.1	133600*	133600*
35	74.9	122.9	117400*	117400*
40	72.4	121.4	102200*	97900
45	69.9	119.7	90400*	82500
50	67.3	117.7	80200	71100
60	62.0	113.0	62900	55200
70	56.5	107.1	51400	44700
80	50.5	99.7	43100	37300
90	44.0	90.4	36900	31700
100	36.7	78.7	32100	27400
110	27.7	62.8	28200	23900
120	14.4	36.8	25100	21100
130 Ft. Boom				
30	78.4	134.3	125400*	125400*
35	76.1	133.2	116900*	116900*
40	73.8	131.8	101700*	97600
45	71.5	130.3	89900*	82200
50	69.2	128.5	79900	70800
60	64.4	124.2	62600	54900
70	59.4	118.9	51100	44400
80	54.1	112.3	42800	36900
90	48.4	104.3	36600	31400
100	42.2	94.4	31800	27000
110	35.2	81.9	27900	23600
120	26.6	65.2	24700	20800
130	13.8	38.0	22100	18400
140 Ft. Boom				
35	77.1	143.5	110400*	110400*
40	75.0	142.2	101300*	97300
45	72.9	140.8	89400*	81900
50	70.7	139.1	79600	70500
60	66.3	135.2	62300	54600
70	61.8	130.3	50700	44100
80	57.0	124.4	42500	36600
90	52.0	117.3	36200	31000
100	46.6	108.7	31400	26700
110	40.6	98.2	27500	23300
120	33.9	85.0	24400	20400
130	25.6	67.5	21700	18100
140	13.3	39.2	19500	16100

Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
150 Ft. Boom				
35	78.0	153.7	103600*	103600*
40	76.0	152.6	97900*	97000
45	74.0	151.2	88900*	81600
50	72.0	149.7	79200	70200
60	68.0	146.1	62000	54200
70	63.8	141.6	50400	43700
80	59.4	136.2	42100	36300
90	54.9	129.7	35900	30700
100	50.1	122.0	31100	26400
110	44.9	112.9	27200	22900
120	39.2	101.8	24000	20100
130	32.7	88.0	21400	17700
140	24.7	69.7	19100	15800
150	12.8	40.3	17200	14100
160 Ft. Boom				
40	76.9	162.8	91100*	91100*
45	75.1	161.6	86300*	81300
50	73.2	160.2	78800*	69900
60	69.4	156.8	61600	53900
80	61.5	147.7	41800	35900
100	53.0	134.8	30700	26000
120	43.4	116.9	23700	19700
140	31.6	90.9	18800	15400
160	12.4	41.4	15200	12200
170 Ft. Boom				
40	77.7	173.1	85700*	85700*
45	76.0	171.9	81200*	81000*
50	74.2	170.6	77000*	69600
60	70.7	167.4	61300	53600
80	63.4	158.9	41400	35600
100	55.5	147.1	30400	25700
120	46.9	131.0	23300	19400
140	36.7	108.7	18400	15100
160	23.2	74.0	14800	11900
180 Ft. Boom				
40	78.4	183.3	80600*	80600*
45	76.8	182.2	76300*	76300*
50	75.1	181.0	72100*	69300
60	71.8	178.0	61000	53300
80	64.9	170.1	41100	35300
100	57.7	159.1	30000	25300
120	49.8	144.4	23000	19000
140	40.8	124.6	18100	14700
160	29.8	96.4	14500	11500
180	11.7	43.6	11700	9100
190 Ft. Boom				
40	79.0	193.5	76100*	76100*
45	77.5	192.5	71600*	71600*
50	75.9	191.3	67000*	67000*
60	72.8	188.5	60600*	53000
80	66.3	181.0	40800	34900
100	59.6	170.8	29700	25000
120	52.3	157.3	22600	18700
140	44.2	139.4	17700	14400
160	34.7	115.1	14100	11200
180	21.9	78.0	11400	8800
200 Ft. Boom				
45	78.1	202.7	66600*	66600*
50	76.6	201.6	63000*	63000*
60	73.7	198.9	56900*	52700
80	67.6	191.9	40400	34600
100	61.2	182.3	29300	24600
120	54.5	169.7	22300	18400
140	47.1	153.4	17400	14000
160	38.6	131.8	13800	10800
180	28.2	101.5	11000	8400
200	11.1	45.5	8800	6500
210 Ft. Boom				
45	78.7	212.9	62800*	62800*
50	77.3	211.8	59500*	59500*
60	74.5	209.3	53500*	52400
80	68.7	202.7	40100	34300
100	62.7	193.6	29000	24300
120	56.4	181.9	21900	18000
140	49.5	166.8	17000	13700
160	41.9	147.3	13400	10500
180	32.9	121.2	10600	8000
200	20.8	81.7	8500	6100

**LORAIN MC1650 165-TON CAPACITY****LONG TAPERED PEAK BOOM***WITH MAXIMUM COUNTERWEIGHT 68,600 lbs (31117 kg)**& BUMPER COUNTERWEIGHT 16,000 lbs (7258 kg)*

Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
220 Ft. Boom				
50	77.9	222.1	56000*	56000*
60	75.2	219.7	50600*	50600*
80	69.7	213.4	38800*	33900
100	64.1	204.8	28600	24000
120	58.1	193.8	21500	17700
140	51.7	179.7	16600	13300
160	44.7	161.9	13000	10100
180	36.8	138.7	10300	7700
200	26.9	106.4	8100	5800
220	10.6	47.4	6300	4200
230 Ft. Boom				
50	78.4	232.3	53100*	53100*
60	75.8	230.0	45600*	45600*
80	70.6	224.0	35000*	33600
100	65.3	215.9	28300	23600
120	59.6	205.5	21200	17300
140	53.7	192.3	16300	13000
160	47.2	175.8	12700	9800
180	40.0	154.8	9900	7300
200	31.4	126.9	7700	5400
220	19.9	85.3	6000	3900
240 Ft. Boom				
50	78.9	242.5	50000*	50000*
60	76.4	240.3	43100*	43100*
80	71.5	234.6	32900*	32900*
100	66.4	226.9	27000*	23300*
120	61.0	217.0	20800	17000
140	55.4	204.6	15900	12600
160	49.4	189.2	12300	9400
180	42.7	169.9	9600	7000
200	35.1	145.2	7400	5100
220	25.7	111.1	5600	3500
240	10.1	49.3	4200	
250 Ft. Boom				
55	78.2	251.7	43100*	43100*
60	77.0	250.6	40300*	40300*
80	72.2	245.1	31900*	31900*
100	67.4	237.7	24700*	22900
120	62.3	228.3	19200*	16600
140	57.0	216.6	15200*	12200
160	51.3	202.2	12000	9100
180	45.2	184.3	9200	6600
200	38.3	161.9	7000	4700
220	30.1	132.4	5300	3100
240	19.1	88.8	3800	
260 Ft. Boom				
55	78.6	261.9	40800*	40800*
60	77.5	260.8	38100*	38100*
80	72.9	255.6	30200*	30200*
100	68.3	248.5	21600*	21600*
120	63.4	239.6	17600*	16300
140	58.4	228.4	14400*	11900
160	53.1	214.8	11200*	8700
180	47.3	198.1	8800*	6300
200	41.0	177.5	6700	4300
220	33.7	151.3	4900	
240	24.7	115.6	3300*	
270 Ft. Boom				
55	79.1	272.1	38500*	38500*
60	78.0	271.1	36000*	36000*
80	73.6	266.0	28300*	28300*
100	69.1	259.3	20000*	20000*
120	64.5	250.7	16200*	15900
140	59.7	240.1	13000*	11500
160	54.6	227.2	10100*	8300
180	49.2	211.5	7700*	5900
200	43.4	192.4	5600*	4000
220	36.8	168.7	4100*	

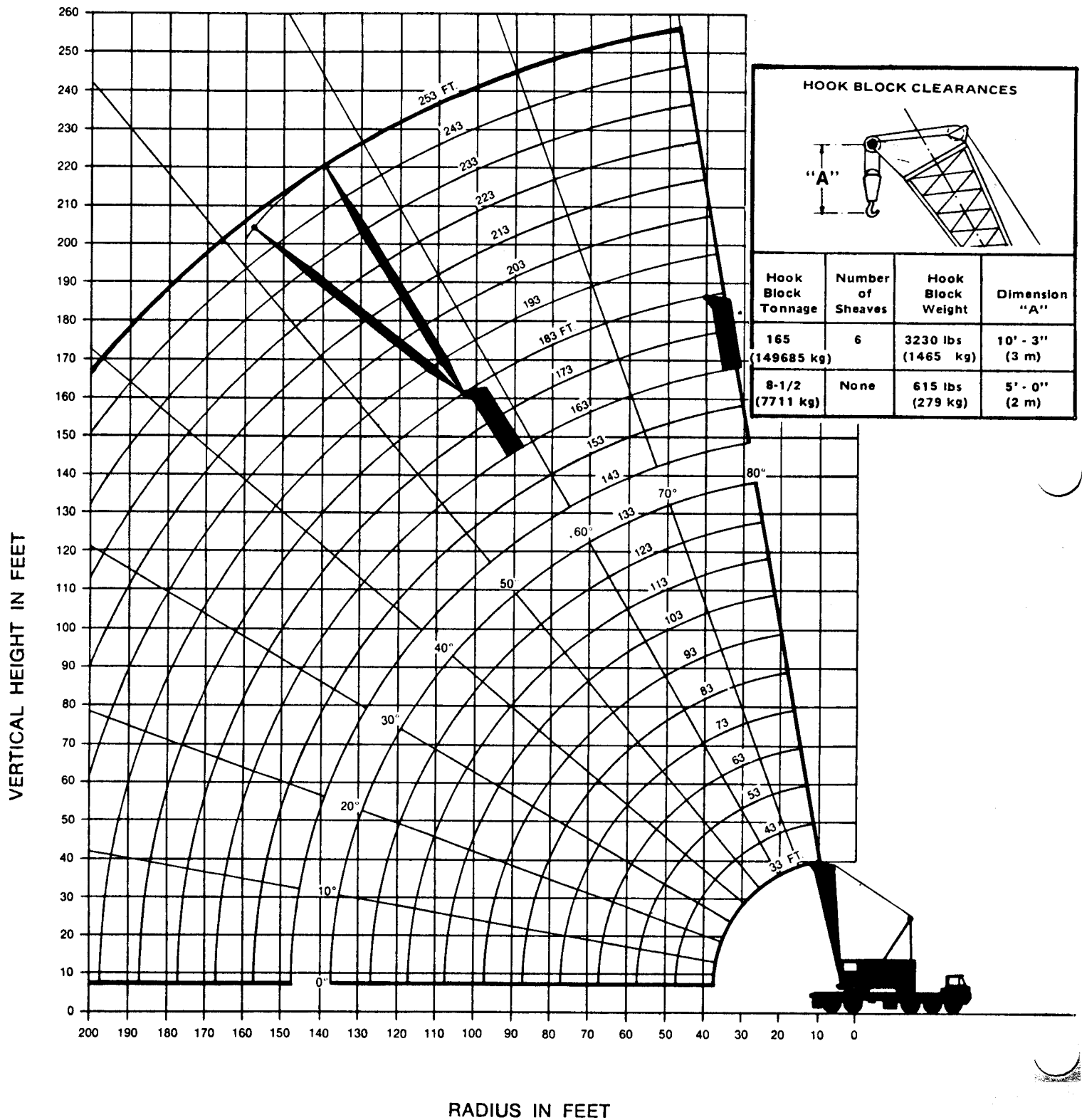
Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
280 Ft. Boom				
60	78.4	281.3	33800*	33800*
80	74.2	276.4	26100*	26100*
100	69.9	269.9	18500*	18500*
120	65.5	261.7	14700*	14700*
140	60.9	251.6	11500*	11200
160	56.1	239.3	8700*	8000
180	51.0	224.6	6600*	5500
200	45.5	206.7	4600*	3600
220	39.4	184.9	3000*	
Following Load Ratings Include Jib				
290 Ft. Boom				
60	78.8	291.5	30000*	30000*
80	74.8	286.8	20000*	20000*
100	70.6	280.6	17000*	17000*
120	66.4	272.7	13300*	13300*
140	62.0	263.0	10300*	10300*
160	57.4	251.3	7500*	7500*
180	52.6	237.3	5500*	5200
200	47.4	220.5	3600*	3300
300 Ft. Boom				
60	79.2	301.7	30000*	30000*
80	75.3	297.1	20000*	20000*
100	71.3	291.1	15400*	15400*
120	67.2	283.6	11600*	11600*
140	63.0	274.3	8900*	8900*
160	58.6	263.1	6500*	6500*
180	54.0	249.8	4300*	4300*
310 Ft. Boom				
60	79.5	311.9	28200*	28200*
80	75.8	307.5	19200*	19200*
100	71.9	301.7	14700*	14700*
120	68.0	294.4	10600*	10600*
140	63.9	285.5	7600*	7600*
160	59.7	274.7	5400*	5400*
180	55.4	262.0	3300*	3300*
320 Ft. Boom				
60	79.9	322.0	22000*	22000*
80	76.2	317.8	14000*	14000*
100	72.5	312.2	13200*	13200*
120	68.7	305.1	9100*	9100*
140	64.8	296.5	6500*	6500*
160	60.8	286.3	4100*	4100*
330 Ft. Boom				
60	80.2	332.2	15000*	15000*
80	76.6	328.1	10000*	10000*
100	73.0	322.7	10000*	10000*
120	69.4	315.8	8200*	8200*
140	65.6	307.6	5400*	5400*
160	61.7	297.7	3100*	3100*
340 Ft. Boom				
60	80.5	342.3	12000*	12000*
80	77.0	338.3	8000*	8000*
100	73.6	333.1	8000*	8000*
120	70.0	326.5	6900*	6900*
140	66.4	318.5	4000*	4000*
350 Ft. Boom				
60	80.8	352.5	10000*	10000*
80	77.4	348.6	7000*	7000*
100	74.0	343.5	7000*	7000*
110	72.3	340.5	7000*	7000*
120	70.6	337.1	5700*	5700*

**Maximum Rated
Load In Pounds**



LORAIN MC1650 165-TON CAPACITY

RANGE DIAGRAM: HAMMERHEAD PEAK BOOM



**LORAIN MC1650 165-TON CAPACITY**

WITH MAXIMUM COUNTERWEIGHT 68,600 lbs (31117 kg)
& BUMPER COUNTERWEIGHT 16,000 lbs (7258 kg)

CAPACITY CHART:**HAMMERHEAD PEAK BOOM**

Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
33 Ft. Boom				
12	82.2	39.2	330000*	330000*
15	76.8	38.3	273900*	273900*
20	67.3	36.0	208100*	208100*
25	56.8	32.5	167300*	167300*
30	44.4	27.4	139600*	139600*
35	26.4	18.3	119500*	119500*
43 Ft. Boom				
15	80.0	48.7	273300*	273300*
20	73.0	47.0	207600*	207600*
25	65.6	44.6	166800*	166800*
30	57.6	41.3	139000*	139000*
35	48.7	36.8	118900*	118900*
40	38.0	30.4	103700*	97700*
45	22.2	19.7	91800*	82500*
53 Ft. Boom				
15	81.9	58.9	247000*	247000*
20	76.3	57.6	207000*	207000*
25	70.5	55.7	166200*	166200*
30	64.5	53.2	138500*	138500*
35	58.1	50.0	118400*	118400*
40	51.1	45.9	103200*	97500*
45	43.2	40.5	91300*	82200*
50	33.6	33.2	80100*	70900*
63 Ft. Boom				
20	78.5	68.0	191900*	191900*
25	73.8	66.4	153500*	153500*
30	68.9	64.4	138000*	138000*
35	63.8	61.8	117900*	117900*
40	58.4	58.7	102700*	97200*
45	52.7	54.8	90700*	81900*
50	46.3	49.9	79800*	70600*
60	30.4	35.6	62600*	54800*
73 Ft. Boom				
20	80.1	78.3	191400*	191400*
25	76.1	76.9	153100*	153100*
30	71.9	75.2	137400*	137400*
35	67.7	73.1	117400*	117400*
40	63.3	70.5	102200*	96900*
45	58.6	67.3	90200*	81600*
50	53.7	63.6	79500*	70300*
60	42.7	53.7	62300*	54500*
70	28.0	37.9	50800*	44100*
83 Ft. Boom				
20	81.4	88.5	184700*	184700*
25	77.8	87.3	152300*	152300*
30	74.2	85.8	136900*	136900*
35	70.5	84.0	116900*	116900*
40	66.8	81.8	101700*	96700*
45	62.9	79.1	89700*	81400*
50	58.8	76.0	79200*	70000*
60	50.0	68.2	62000*	54200*
70	39.8	57.1	50500*	43700*
80	26.0	40.0	42200*	36300*
93 Ft. Boom				
25	79.2	97.6	151800*	151800*
30	76.0	96.3	136400*	136400*
35	72.7	94.7	116300*	116300*
40	69.4	92.7	101200*	96400*
45	66.0	90.4	89200*	81100*
50	62.6	87.8	78900*	69700*
60	55.2	81.2	61700*	53900*
70	47.0	72.4	50100*	43400*
80	37.3	60.4	41900*	36000*
90	24.4	42.0	35700*	30500*

Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
103 Ft. Boom				
25	80.2	107.9	149800*	149800*
30	77.4	106.7	135900*	135900*
35	74.5	105.2	115800*	115800*
40	71.5	103.5	100600*	96100
45	68.5	101.5	88700*	80800
50	65.5	99.1	78600	69400
60	59.0	93.4	61300	53600
70	52.1	86.0	49800	43100
80	44.4	76.4	41600	35700
90	35.3	63.4	35400	30100
100	28.1	43.9	30600	25800
113 Ft. Boom				
25	81.1	118.0	140900*	140900*
30	78.5	117.0	131300*	131300*
35	75.9	115.7	115300*	115300*
40	73.2	114.1	100100*	95900
45	70.5	112.3	88200*	80500
50	67.8	110.2	78200	69100
60	62.1	105.1	61000	53200
70	56.1	98.6	49500	42800
80	49.5	90.5	41200	35300
90	42.2	80.1	35000	29800
100	33.6	66.3	30200	25500
110	21.9	45.7	26300	22000
123 Ft. Boom				
30	79.5	127.2	123400*	123400*
35	77.1	126.0	114800*	114800*
40	74.6	124.6	99600*	95600
45	72.2	122.9	87700*	80200
50	69.7	121.0	77900	68800
60	64.6	116.5	60700	52900
70	59.2	110.7	49100	42400
80	53.5	103.6	40900	35000
90	47.3	94.8	34700	29400
100	40.3	83.7	29900	25100
110	32.1	69.1	26000	21700
120	20.9	47.4	22800	18900
133 Ft. Boom				
30	80.3	137.4	116800*	116800*
35	78.1	136.3	108600*	108600*
40	75.8	135.0	99100*	95300
45	73.6	133.5	87200*	79900
50	71.3	131.8	77600	68500
60	66.6	127.6	60400	52600
70	61.8	122.4	48800	42100
80	56.7	116.0	40500	34700
90	51.2	108.3	34300	29100
100	45.3	98.9	29500	24800
110	38.7	87.1	25600	21300
120	30.8	71.7	22500	18500
130	20.0	49.0	19800	16200
143 Ft. Boom				
35	78.9	146.6	102400*	102400*
40	76.8	145.4	96300*	95100
45	74.8	144.0	86700*	79700
50	72.7	142.4	77200*	68200
60	68.4	138.5	60000	52300
70	63.9	133.8	48500	41800
80	59.3	128.0	40200	34300
90	54.4	121.1	34000	28800
100	49.2	112.8	29200	24400
110	43.6	102.8	25300	21000
120	37.2	90.4	22100	18200
130	29.6	74.3	19500	15800
140	19.3	50.6	17200	13900

MAXIMUM RATED LOAD IN POUNDS

**LORAIN MC 1650 165-TON CAPACITY****HAMMERHEAD PEAK BOOM**

WITH MAXIMUM COUNTERWEIGHT 68,600 lbs. (31117 kg)
& BUMPER COUNTERWEIGHT 16,000 lbs (7258 kg)

Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
153 Ft. Boom				
35	79.6	156.8	96400*	96400*
40	77.7	155.7	90200*	90200*
45	75.8	154.4	85500*	79400
50	73.8	152.9	76700*	67900
60	69.9	149.3	59700	52000
70	65.8	145.0	48100	41500
80	61.5	139.7	39900	34000
90	57.1	133.4	33600	28400
100	52.5	126.0	28800	24100
110	47.5	117.2	24900	20700
120	42.0	106.5	21800	17800
130	35.8	93.5	19100	15500
140	28.5	76.7	16900	13500
150	18.6	52.1	15000	11800
163 Ft. Boom				
40	78.5	166.0	85100*	85100*
45	76.7	164.7	80400*	79100
50	74.9	163.3	76200*	67600
60	71.2	160.0	59400	51700
80	63.5	151.1	39500	33700
100	55.2	138.6	28500	23800
120	45.9	121.3	21400	17500
140	34.7	96.6	16500	13200
160	17.9	53.6	12900	10000
173 Ft. Boom				
40	79.2	176.2	80200*	80200*
45	77.5	175.1	76000*	76000*
50	75.8	173.7	72600*	67300
60	72.3	170.6	59100	51400
80	65.1	162.3	39200	33300
100	57.5	150.8	28100	23400
120	49.1	135.2	21100	17100
140	39.3	113.7	16200	12800
160	26.7	81.4	12600	9600
183 Ft. Boom				
40	79.8	186.4	75800*	75800*
45	78.2	185.3	72200*	72200*
50	76.6	184.1	66900*	66900*
60	73.3	181.2	58700	51100
80	66.6	173.4	38800	33000
100	59.5	162.7	27800	23100
120	51.8	148.4	20700	16800
140	43.1	129.2	15800	12400
160	32.6	102.3	12200	9300
180	16.8	56.4	9500	6900
Following Load Ratings Include Jib				
193 Ft. Boom				
40	80.3	196.6	30000*	30000*
45	78.8	195.6	30000*	30000*
50	77.3	194.4	30000*	30000*
60	74.2	191.7	30000*	30000*
80	67.9	184.3	30000*	20000*
100	61.2	174.3	20000*	20000*
120	54.1	161.1	20000*	17700
140	46.2	143.7	16700	13300
160	37.1	120.4	13100	10200
180	25.2	85.7	10300	7700
203 Ft. Boom				
45	79.4	205.8	30000*	30000*
50	77.9	204.7	30000*	30000*
60	75.0	202.1	30000*	30000*
80	69.0	195.2	20000*	20000*
100	62.8	185.8	20000*	20000*
120	56.1	173.5	20000*	17300
140	48.9	157.5	16300	12900
160	40.8	136.7	12700	9800
180	30.8	107.8	9900	7300
200	15.9	59.1	7800	5400

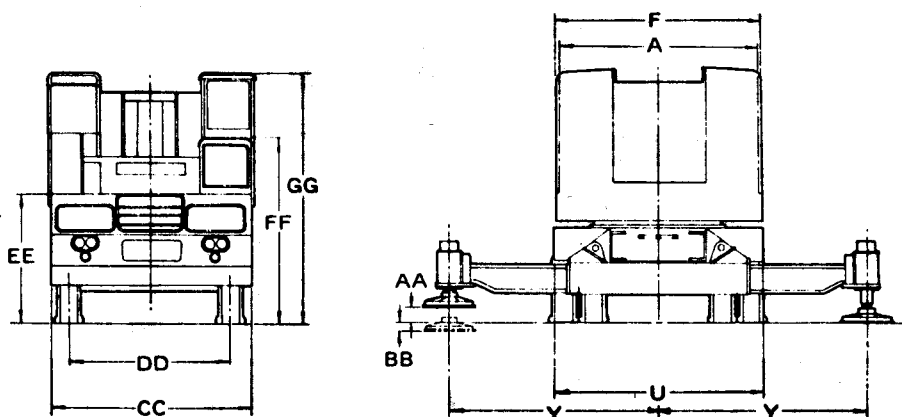
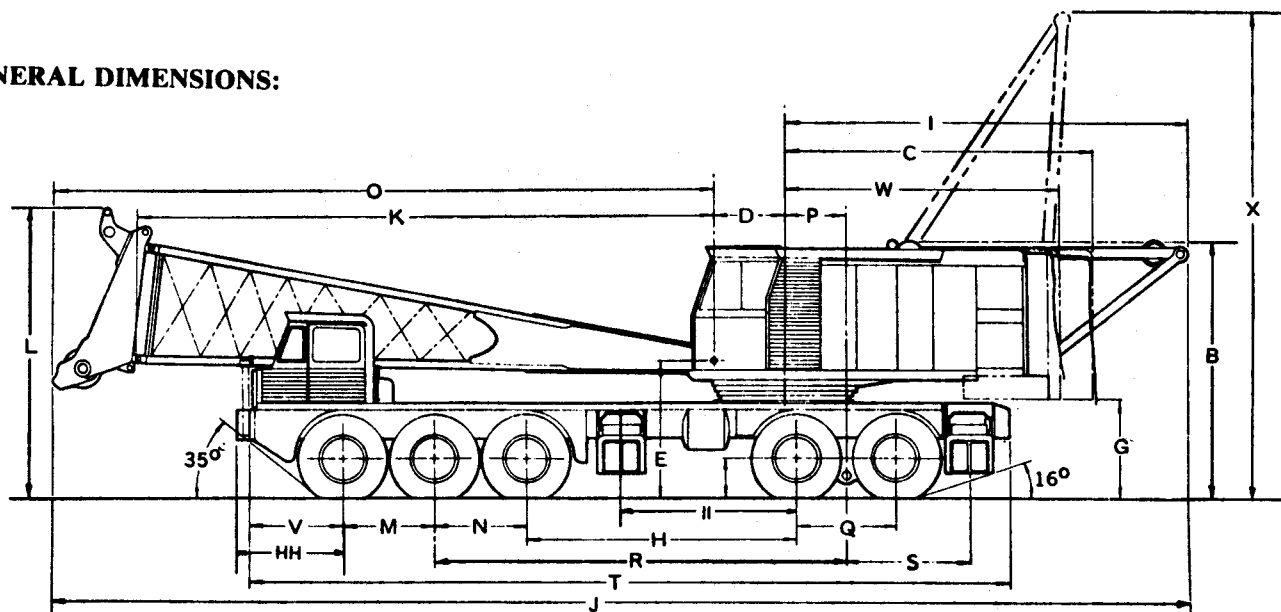
Boom Radius Feet	Boom Angle Degrees	Boom Peak Height Feet	With Outriggers	
			Over Rear	Over Side
213 Ft. Boom				
45	79.9	216.0	30000*	30000*
50	78.5	215.0	30000*	30000*
60	75.7	212.5	30000*	30000*
80	70.1	205.9	20000*	20000*
100	64.2	197.1	20000*	20000*
120	58.0	185.5	20000*	16900
140	51.3	170.8	15800	12500
160	43.8	151.8	12200	9300
180	35.2	126.7	9500	6900
200	23.9	89.9	7300	5000
223 Ft. Boom				
45	80.3	226.2	22000*	22000*
50	79.0	225.2	22000*	22000*
60	76.4	222.8	22000*	22000*
80	71.0	216.6	14000*	14000*
100	65.4	208.2	14000*	14000*
120	59.6	197.3	14000*	14000*
140	53.8	183.6	14000*	12700
160	46.5	166.2	12400	9500
180	38.8	143.7	9600	7000
200	29.3	113.0	7500	5100
220	15.1	61.6	5700	3600
233 Ft. Boom				
50	79.5	235.4	15000*	15000*
60	77.0	233.1	15000*	15000*
80	71.8	227.2	10000*	10000*
100	66.5	219.2	10000*	10000*
120	61.0	209.0	10000*	10000*
140	55.2	196.0	10000*	10000*
160	48.8	179.9	10000*	9700
180	41.8	159.4	9800	7200
200	33.6	132.7	7700	5300
220	22.8	93.8	5900	3800
243 Ft. Boom				
50	79.9	245.6	12000*	12000*
60	77.5	243.4	12000*	12000*
80	72.6	237.8	8000*	8000*
100	67.6	230.2	8000*	8000*
120	62.3	220.4	8000*	8000*
140	56.8	208.2	8000*	8000*
160	50.9	193.1	8000*	8000*
180	44.4	174.3	8000*	7400
200	37.0	150.4	7800	5500
220	28.0	117.9	6100	4000
240	14.5	64.0	4100	
253 Ft. Boom				
50	80.3	255.8	10000*	10000*
60	78.0	253.7	10000*	10000*
80	73.3	248.3	7000*	7000*
100	68.5	241.0	7000*	7000*
120	63.5	231.7	7000*	7000*
140	58.3	220.2	7000*	7000*
160	52.7	206.0	7000*	7000*
180	46.7	188.5	7000*	7000*
200	40.0	166.7	7000*	5700
220	32.1	138.4	6300	4200
240	21.8	97.6	4200*	

**Maximum Rated
Load In Pounds**



LORAIN MC1650 165-TON CAPACITY

GENERAL DIMENSIONS:



TRAVEL LENGTH:	59'-6"
TRAVEL HEIGHT:	13'-5"
TRAVEL WIDTH:	10'-6"
CENTERPIN-REAREND:	11'-8"
MAX. TAIL SWING:	16'-9"
OUTRIGGERS EXTENDED:	22'-0"
(Add 4' for Pads)	

A	B	C	D	E	F	G	H	I	J	K
10'-8"	13'-4.5"	18'-8.75"	3'-9"	7'-3"	10'-10"	5'-3"	14'-3"	21'-6"	59'-6"	30'-3"
(3.2 m)	(4 m)	(5.1 m)	(1.1 m)	(2.2 m)	(3.2 m)	(1.6 m)	4.3 m	(6.5 m)	(18.1 m)	(9.2 m)

L	M	N	O	P	Q	R	S	T	U	V
15'-3"	4'-10"	4'-10"	34'-4"	3'-3"	5'-2"	21'-8"	6'-5"	39'-9.75"	10'-11.75"	4'-10"
(4.6 m)	(1.4 m)	(1.4 m)	(10.5 m)	(1 m)	(1.6 m)	(6.6 m)	(1.95 m)	(12.1 m)	(3.3 m)	(1.4 m)

W	X	Y	AA	BB	CC	DD	EE	FF	GG	HH	II
14'-5"	25'-0"	11'-0"	10"	5"	10'-8"	100"	6'-9.63"	9'-9.13"	13'-2.12"	7'-1"	11'-10"
(4.4 m)	(7.6 m)	(3.4 m)	(254 mm)	(127 mm)	(3.2 m)	(2.5 m)	(2.1 m)	(3 m)	(4 m)	(2.16 m)	(3.61 m)

- NOTES:
- (1) Basic 33' (10 m) H.H. boom with no mast, 15'-3" (4.6 m)
 - (2) Basic 33' (10 m) H.H. boom with mast, 15'-3" (4.6 m)
 - (3) Base section only with no mast, 13'-6" (4.1 m)
 - (4) Base section only with mast, 14'-3" (4.3 m)
 - (5) Dimensions L,E,G,B,X, increase by 4.5" (114 mm) when undecking device is installed.



LORAIN MC1650 165-TON CAPACITY

NOTES

1. Crane load ratings in pounds as determined by boom length, radius or boom angle apply to the MC-8150 Moto-Crane only as originally manufactured, equipped and mounted on a 10 x 4 Lorain MC-8150 carrier. **THEY ARE MAXIMUM CRANE LOAD RATINGS.**
2. Operating radius is the horizontal distance from the axis of rotation before loading, to the center of the vertical hoist line or tackle with load applied. Crane load ratings are for machines with 24,100 lbs. of standard counterweight or 58,600 lbs. of maximum counterweight, and do not exceed 85% of tipping loads. Ratings identified with asterisk (*) are based on the machine's structural competence and not on the machine stability. Weight of hooks, hook blocks, slings and all other handling devices, except hoist rope shall be considered a part of the load. Crane load ratings with outriggers are based on outrigger fully extended and set to a distance of 11 ft. 0 in. from the longitudinal axis of the carrier to the outrigger float pivot connection and wheels within the boundary of the outriggers. Crane load ratings without outriggers depend on tire capacity and condition of tires inflated to 100 P.S.I.
3. Crane load ratings are based on freely suspended loads with the machine leveled and standing on a firm, uniform supporting surface. Practical working loads depend on supporting surface, wind and other factors affecting stability, hazardous surroundings, experience of personnel and proper handling, all of which must be taken into account by the operator. Positioning or operation at radii and boom or jib lengths beyond the maximum and minimum shown, is not intended or approved.
4. The operator and other personnel should fully read and acquaint themselves with Operator's Manual furnished by the manufacturer BEFORE operating this machine, and Rules for Safe Operation of equipment should be adhered to at all times.
5. This crane and its load ratings are in accordance with Power Crane and Shovel Association Standards No. 1, SAE Crane Load Stability Test Code J-765a, SAE Method of Test for Crane Structure J-987 and Safety Code for Cranes, Derricks and Hoists, ANSI B30.5-1968.
6. All ratings are with gantry in raised position.
7. Do not exceed the "over-the-rear" capacities when lifting over a corner.
8. Use blocking under front tires or front part of carrier frame if boom and/or load is to be moved forward of front outriggers.
9. The crane, equipped with maximum counterweight, is suitable for lifting crane service only. **OUTRIGGERS MUST BE FULLY EXTENDED. DO NOT SWING OVER SIDE WITH THE OUTRIGGERS RAISED OR RETRACTED.**
10. "Without Outriggers" crane load ratings are for over rear and over side as indicated. If loads are to be rotated over the corners of the vehicle, the outriggers should be extended to reduce tire and axle loadings.
11. The crane, equipped with standard counterweight, is suitable for crane, dragline and clamshell service.
12. The total weight of bucket plus load must not exceed 80% of the "Without Outriggers" crane load ratings up to a maximum of 15,000 lbs. for dragline service and 18,000 lbs. for clamshell service.
13. Boom 190 ft. and over requires mast in addition to raised gantry. Mast with raised gantry may also be used with boom lengths under 190 ft.
14. More than one part hoist line must be used on any boom when lifting radius is less than 20 ft.
15. Intermediate suspension required for booms 240 ft. and over
16. Maximum length of boom (without jib) **TAPERED POINT** 280 ft.
17. The lengths listed below may be carried over the rear under the following conditions, straight back or forward movement, outriggers cleared of the ground, gantry erected (25 ft. 0 in. overall height). For conditions requiring maneuverability reduce boom length by 10 ft.

Standard Counterweight	Maximum Counterweight
120 ft. boom without jib	160 ft. boom without jib
100 ft. boom and 30 ft. jib	150 ft. boom and 30 ft. jib
90 ft. boom and 70 ft. jib	140 ft. boom and 50 ft. jib
	130 ft. boom and 70 ft. jib

Speed restricted to 5 MPH maximum Speed restricted to low-low gear
18. With gantry in lowered position or gantry lowered and mast pinned to the base section (13 ft. 4½ in. overall height less jib) (19 ft. 0 in. with jib), the following maximum boom lengths may be carried over the rear without outriggers (Standard Counterweight or Maximum Counterweight):

120 ft. boom without jib	
90 ft. boom and 70 ft. jib	

Speed restricted to 5 MPH maximum (Standard Counterweight)
Speed restricted to low-low gear (Maximum Counterweight)
19. With outriggers set, mast and gantry in raised position, the following maximum boom lengths may be raised unassisted, from the horizontal over the rear:

Standard Counterweight	Maximum Counterweight
190 ft. boom without jib	240 ft. boom without jib
170 ft. boom and 50 ft. jib	220 ft. boom and 30 ft. jib
160 ft. boom and 70 ft. jib	210 ft. boom and 60 ft. jib
	200 ft. boom and 70 ft. jib
20. Rear auxiliary outriggers are required for boom and jib combinations longer than those shown in note 19.

Standard Counterweight	Maximum Counterweight
250 ft. boom without jib	280 ft. boom without jib
230 ft. boom and 30 ft. jib	270 ft. boom and 60 ft. jib
220 ft. boom and 50 ft. jib	260 ft. boom and 70 ft. jib
210 ft. boom and 70 ft. jib	
21. Rear auxiliary outriggers and 16,000 lbs. bumper counterweight are required for boom and jib combinations longer than those shown in note 20.

Maximum Counterweight
280 ft. boom and 70 ft. jib
280 ft. boom and 60 ft. jib
270 ft. boom and 70 ft. jib
22. When working with boom lengths that require auxiliary outriggers for erection, do not exceed the radii as shown on crane load rating chart.
23. The rear hinged auxiliary outrigger beams are to be used only when raising or lowering long booms. They are never to be used or placed under load during hoisting operations.
24. Hoist Cable Reeving:

Number of Parts of Hoist Lines	1	2	3	4	5	6	7	8
Maximum Loads (Lbs.)	25000	50000	75000	100000	125000	150000	175000	191600

Use 1 in. diameter hoist cable (6x25, IWRC) of 44.9 tons breaking strength.
25. Crane load ratings are based on the use of dual pairs of 1¼ in. diameter swaged pendants (6 x 25, IWRC) of 87 tons breaking strength and 20 parts of ¾ in. diameter derricking cable (6 x 30G, IWRC) of 28.1 tons breaking strength.

NOTES FOR JIB APPLICATION

1. Jibs may be used straight or offset. 30 ft. jib is of two-piece design and may be extended to 70 ft. with center sections. The following data apply:

Jib Lgth.	Radius	Max. Lgth. of Boom Incl. Jib		Jib Offset and Max. Load Ratings (Lbs.)					Weight of Jib and Backlogs
		Std. Chart.	Max. Chart.	0 Ft.	6 Ft.	12 Ft.	18 Ft.	24 Ft.	
30 Ft.	Up thru 70' Over 70'	260 Ft.	310 Ft.	30000 20000	30000 20000	30000 20000			2230 Lbs.
40 Ft.	Up thru 70' Over 70'	260 Ft.	320 Ft.	22000 14000	22000 14000	22000 14000	16000 10000		2600 Lbs.
50 Ft.	Up thru 70' Over 70'	270 Ft.	330 Ft.	15000 10000	15000 10000	15000 10000	14000 9000	12000 8000	2810 Lbs.
60 Ft.	Up thru 70' Over 70'	270 Ft.	340 Ft.	12000 8000	12000 8000	11000 7500	10000 7000	9000 6000	3150 Lbs.
70 Ft.	Up thru 70' Over 70'	280 Ft.	350 Ft.	10000 7000	9000 6500	8000 6000	7000 5500	6000 4500	3400 Lbs.

2. Load ratings for jibs are the same as for the boom length which is equal to the length of main boom plus jib but in no case may they exceed the capacities shown above.
3. With jib installed, load ratings over main boom head must be reduced as follows:

2320 lbs. for 30 ft. jib	3020 lbs. for 50 ft. jib
2750 lbs. for 40 ft. jib	3450 lbs. for 60 ft. jib
	3750 lbs. for 70 ft. jib

