

# HC 110

## Hydraulic Crawler Crane



### FEATURES

- **110 tons (100 mt) max lift capacity**
- **230 ft. (70 m) max main boom length**
- **200+70 ft. (61+21 m) max lift crane boom & jib length**
- Power up/down and freefall on main and auxiliary drums
- 40,640 lbs. (18 435 kg) max single line pull, 565 fpm (172 mpm) max line speed
- Quiet, comfortable operator's cab with excellent viewing range
- Shockless stop system gradually retards operating speed to reduce shocks when crane approaches lifting load or boom limits
- Two speed travel allows operator to select the best speed and power control for any condition
- Superior transportability:  
11 ft. (3.35 m) width  
11 ft. 3 in. (3.43 m) height
- 99,400 lbs. (45 100 kg) transport weight including sideframes and boom inner. Transports with full boom and jib on only 4 trucks
- Hydraulic counterweight removal system simplifies installation and removal

**THE ULTIMATE CRANE**<sup>™</sup>

### LIFT RATINGS IN POUNDS

With 59HI Offset Tip Boom and 52,900 Pound Counterweight

Boom Length	Radius (Feet)	Boom Angle (Degrees)	Side Frames Extended (Pounds)	From Boom Pt. to Ground (Feet)	Boom Length	Radius (Feet)	Boom Angle (Degrees)	Side Frames Extended (Pounds)	From Boom Pt. to Ground (Feet)	Boom Length	Radius (Feet)	Boom Angle (Degrees)	Side Frames Extended (Pounds)	From Boom Pt. to Ground (Feet)
50' (15.2M)	13	79.9	220,000*	56	100' (con't)	80	40.6	18,220	71	150' (45.7M)	28	80.9	72,790	154
	15	77.6	190,080	55		90	30.6	15,530	57		30	80.1	65,870	154
	20	71.6	123,590	54		100	15.8	13,440	34		35	78.2	53,210	153
	25	65.4	87,980	52	110' (33.5M)	22	80.7	105,370	115		40	76.2	44,220	152
	30	58.9	67,950	49		25	79.1	86,910	114		50	72.2	32,560	149
	35	51.9	55,210	46		30	76.5	66,750	113		60	68.2	25,580	146
	40	44.1	46,320	41		35	73.8	54,060	112		70	64.0	20,650	141
50	22.7	34,800	26	40		71.0	45,100	110	80	59.6	17,080	136		
60' (18.3M)	14	80.7	203,570*	66		50	65.4	33,500	106	90	55.1	14,370	129	
	15	79.7	189,950*	65		60	59.5	26,470	101	100	50.3	12,260	122	
	20	74.8	123,410	64	70	53.2	21,560	94	110	45.1	10,560	113		
	25	69.7	87,800	63	80	46.4	18,000	86	120	39.4	9,160	102		
	30	64.5	67,740	61	90	38.6	15,300	75	130	32.8	7,990	88		
	35	59.1	55,020	58	100	29.1	13,200	60	140	24.9	7,020	69		
	40	53.3	46,110	54	110	15.1	11,530	35	150	12.8	6,190	40		
70' (21.3M)	16	80.3	177,910*	75	120' (36.6M)	24	80.5	91,970	125	160' (48.8M)	30	80.7	65,640	164
	20	77.0	123,260	75		25	80.1	86,700	125		35	78.9	52,980	163
	25	72.8	87,640	73		30	77.6	66,510	124		40	77.1	43,980	162
	30	68.4	67,570	71		35	75.2	53,830	122		50	73.4	32,310	160
	35	63.9	54,860	69		40	72.7	44,860	121		60	69.6	25,340	156
	40	59.2	45,940	67		50	67.6	33,250	117		70	65.7	20,410	152
	50	49.0	34,380	59		60	62.3	26,230	113		80	61.7	16,830	147
80' (24.4M)	17	80.8	162,150	85	70	56.7	21,320	107	90	57.6	14,120	141		
	20	78.7	123,050	85	80	50.8	17,750	99	100	53.2	12,000	134		
	25	75.0	87,450	84	90	44.3	15,060	90	110	48.6	10,300	126		
	30	71.2	67,340	82	100	36.9	12,950	78	120	43.6	8,900	117		
	35	67.4	54,640	80	110	27.9	11,260	62	130	38.1	7,730	105		
	40	63.4	45,710	78	120	14.4	9,880	36	140	31.8	6,750	91		
	50	55.0	34,140	72	130' (39.6M)	25	80.8	86,510	135	150	24.0	5,910	72	
60	45.7	27,070	64	30		78.6	66,320	134	160	12.4	5,200	41		
70	34.4	22,170	52	35		76.3	53,640	133	170' (51.8M)	31	80.9	62,400	174	
80	17.7	18,640	31	40		74.0	44,680	131		35	79.6	52,770	174	
90' (27.4M)	19	80.6	133,760	95		50	69.4	33,040		128	40	77.9	43,770	173
	20	79.9	122,900	95		60	64.6	26,030		124	50	74.4	32,090	170
	25	76.7	87,300	94		70	59.6	21,110		118	60	70.8	25,130	167
	30	73.4	67,190	93	80	54.3	17,560	112		70	67.2	20,200	163	
	35	70.0	54,480	91	90	48.6	14,850	104		80	63.5	16,620	159	
	40	66.6	45,540	89	100	42.4	12,740	94	90	59.7	13,910	153		
	50	59.4	33,960	84	110	35.4	11,040	82	100	55.7	11,780	147		
100' (30.5M)	20	80.9	122,700	105	120	26.7	9,660	65	110	51.5	10,080	139		
	25	78.0	87,090	104	130	13.8	8,510	37	120	47.0	8,670	131		
	30	75.1	66,960	103	140' (42.7M)	27	80.7	76,990	145	130	42.2	7,500	121	
	35	72.1	54,260	102		30	79.4	66,090	144	140	36.9	6,510	108	
	40	69.0	45,310	100		35	77.3	53,410	143	150	30.8	5,670	93	
	50	62.7	33,720	95		40	75.2	44,440	142	160	23.3	4,950	74	
	60	56.0	26,670	89		50	70.9	32,790	139	170	12.1	4,340	42	
70	48.8	21,770	82	60		66.5	25,800	135	180' (54.9M)	33	80.8	57,130	184	
100' (30.5M)	20	80.9	122,700	105		70	62.0	20,870		130	35	80.2	52,540	184
	25	78.0	87,090	104	80	57.2	17,300	124		40	78.6	43,540	183	
	30	75.1	66,960	103	90	52.2	14,610	117		50	75.3	31,840	180	
	35	72.1	54,260	102	100	46.8	12,490	108		60	71.9	24,900	178	
	40	69.0	45,310	100	110	40.8	10,790	98		70	68.6	19,950	174	
	50	62.7	33,720	95	120	34.0	9,400	85		80	65.1	16,370	170	
	60	56.0	26,670	89	130	25.7	8,240	67	90	61.5	13,660	165		
70	48.8	21,770	82	140	13.3	7,270	39	100	57.8	11,530	159			

## LIFT RATINGS IN POUNDS (continued)

### With 59HI Offset Tip Boom and 52,900 Pound Counterweight

Boom Length	Radius (Feet)	Boom Angle (Degrees)	Side Frames Extended (Pounds)	From Boom Pt. to Ground (Feet)	Boom Length	Radius (Feet)	Boom Angle (Degrees)	Side Frames Extended (Pounds)	From Boom Pt. to Ground (Feet)	Boom Length	Radius (Feet)	Boom Angle (Degrees)	Side Frames Extended (Pounds)	From Boom Pt. to Ground (Feet)				
180' (con't)	110	54.0	9,820	152	200' (con't)	80	67.7	15,890	191	220' (67.1M)	39	80.9	36,510*	224				
	120	49.9	8,420	144		90	64.6	13,170	187		40	80.7	36,220*	223				
	130	45.6	7,240	135		100	61.4	11,040	182		50	78.0	30,880	222				
	140	41.0	6,250	124		110	58.0	9,330	176		60	75.3	23,990	219				
	150	35.8	5,410	112		120	54.6	7,920	169		70	72.6	19,020	216				
	160	29.9	4,680	96		130	51.0	6,740	162		80	69.8	15,430	213				
	170	22.6	4,040	76		140	47.2	5,750	153		90	67.1	12,700	209				
	180	11.7	3,510	43		150	43.1	4,900	143		100	64.2	10,570	204				
190' (57.9M)	34	81.0	52,570*	194	160	38.8	4,160	132	110	61.3	8,840	199	230' (70.1M)	41	80.8	31,890*	233	
	35	80.7	52,320	194	170	33.9	3,520	118	120	58.2	7,440	193		50	78.5	28,280*	232	
	40	79.2	43,310	193	180	28.3	2,960	101	130	55.1	6,260	187		60	76.0	23,760	230	
	50	76.1	31,610	191	190	21.5	2,470	80	140	51.9	5,260	179		70	73.4	18,790	227	
	60	72.9	24,680	188	200	11.1	2,050	45	150	48.5	4,400	171		80	70.8	15,190	224	
	70	69.7	19,720	185	210' (64.0M)	38	80.8	41,580*	214	160	44.9	3,650		162	90	68.1	12,470	220
	80	66.5	16,140	181		40	80.2	40,870*	213	170	41.0	3,010		151	100	65.4	10,320	215
	90	63.2	13,420	176		50	77.4	31,130	211	180	36.9	2,450		138	110	62.6	8,600	211
	100	59.7	11,300	170		60	74.6	24,220	209	190	32.3	1,940		124	120	59.8	7,190	205
	110	56.2	9,580	164		70	71.7	19,260	206	200	27.0	1,510		106	130	56.8	6,010	199
	120	52.4	8,170	157		80	68.8	15,670	202	140	53.8	5,010		192	140	53.8	5,010	192
	130	48.5	7,000	149		90	65.9	12,950	198	150	50.6	4,150		184	150	50.6	4,150	184
140	44.3	6,010	139	100		62.9	10,820	193	160	47.3	3,410	175	160	47.3	3,410	175		
150	39.8	5,160	128	110	59.7	9,100	188	170	43.8	2,760	166	170	43.8	2,760	166			
160	34.8	4,420	115	120	56.5	7,690	182	180	40.1	2,190	154	180	40.1	2,190	154			
170	29.1	3,790	99	130	53.2	6,510	174	190	36.0	1,690	142	190	36.0	1,690	142			
180	22.0	3,230	78	140	49.7	5,520	166	200	20.9	1,780	81	200	20.9	1,780	81			
190	11.4	2,760	44	150	46.0	4,660	157	160	42.0	3,920	147	170	37.8	3,270	135			
200' (61.0M)	36	80.9	46,920*	204	180	33.0	2,710	121	180	33.0	2,710	121	190	27.6	2,220	104		
	40	79.7	43,070	203	190	27.6	2,220	104	190	27.6	2,220	104	200	20.9	1,780	81		
	50	76.8	31,360	201	170	37.8	3,270	135	170	37.8	3,270	135	180	33.0	2,710	121		
	60	73.8	24,440	198	180	33.0	2,710	121	180	33.0	2,710	121	190	27.6	2,220	104		
	70	70.8	19,480	195	190	27.6	2,220	104	190	27.6	2,220	104	200	20.9	1,780	81		

## LIFT RATINGS IN POUNDS

### With 59HI Offset Tip Boom, #9HL Jib and 52,900 Pound Counterweight

Boom and Jib Length	Jib Radius (Feet)	5.0 Deg Offset		15.0 Deg Offset		25.0 Deg Offset		Boom and Jib Length	Jib Radius (Feet)	5.0 Deg Offset		15.0 Deg Offset		25.0 Deg Offset	
		Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)			Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)
40' (12.2M) JIB & 100' (30.5M) BOOM	30	80.7	22,540*					40' (con't)	90	59.0	15,350	61.3	15,350	63.2	15,350
	35	78.6	22,540*						100	54.7	13,230	56.9	13,230	58.8	13,230
	40	76.6	22,510*	79.3	21,260*				110	50.2	11,530	52.3	11,530	54.2	11,530
	50	72.3	21,720*	75.0	20,730*	77.5	19,820*		120	45.3	10,120	47.4	10,120	49.1	10,130
	60	68.0	21,090*	70.7	20,190*	73.1	19,490*		40' (12.2M) JIB & 130' (39.6M) BOOM	34	81.0	22,500*			
70	63.5	20,520*	66.1	19,780*	68.5	18,380*	35	80.6		22,500*					
80	58.9	18,580	61.4	18,580	63.7	17,020*	40	78.9		22,500*					
90	53.9	15,880	56.5	15,880	58.7	15,860*	50	75.5		22,240*	77.7	21,010*	79.8	20,020*	
100	48.7	13,760	51.1	13,760	53.2	13,770	60	72.0		21,690*	74.2	20,530*	76.3	19,670*	
40' (12.2M) JIB & 110' (33.5M) BOOM	31	80.9	22,530*					70	68.5	21,100*	70.6	20,130*	72.6	19,390*	
	35	79.4	22,530*					80	64.8	17,820	66.9	17,820	68.9	17,830	
	40	77.5	22,530*	80.0	21,400*			90	61.0	15,120	63.1	15,120	65.0	15,120	
	50	73.5	21,920*	76.0	20,830*	78.4	19,920*	100	57.1	13,000	59.2	13,000	61.0	13,000	
	60	69.5	21,280*	72.0	20,370*	74.3	19,500*	110	52.9	11,290	55.0	11,290	56.8	11,290	
	70	65.4	20,780*	67.9	19,910*	70.1	18,850*	120	48.6	9,890	50.6	9,890	52.3	9,900	
40' (12.2M) JIB & 120' (36.6M) BOOM	80	61.1	18,320	63.6	18,330	65.7	17,510*	130	43.9	8,710	45.8	8,720	47.4	8,720	
	90	56.7	15,620	59.1	15,620	61.2	15,630	40' (12.2M) JIB & 140' (42.7M) BOOM	36	80.8	22,490*				
	100	52.0	13,500	54.3	13,500	56.3	13,510		40	79.6	22,490*				
	110	46.9	11,800	49.2	11,800	51.1	11,800		50	76.3	22,380*	78.4	21,090*	80.4	20,080*
	33	80.8	22,520*						60	73.0	21,830*	75.1	20,690*	77.1	19,760*
	35	80.1	22,520*						70	69.7	21,140	71.8	20,300*	73.7	19,410*
40	78.2	22,520*	80.6	21,460*			80		66.3	17,560	68.3	17,560	70.2	17,560	
50	74.6	22,080*	76.9	20,940*	79.2	19,960*	90	62.8	14,850	64.8	14,850	66.6	14,860		
60	70.9	21,520*	73.2	20,440*	75.4	19,580*	100	59.1	12,730	61.1	12,730	62.9	12,740		
70	67.0	20,980*	69.3	20,010*	71.5	19,290*	110	55.3	11,020	57.3	11,020	59.0	11,030		
80	63.1	18,060	65.4	18,060	67.4	17,960*	120	51.3	9,610	53.3	9,610	54.9	9,620		





# LIFT RATINGS IN POUNDS (continued)

## With 59HI Offset Tip Boom, #9HL Jib and 52,900 Pound Counterweight

Boom and Jib Length	Jib Radius (Feet)	5.0 Deg Offset		15.0 Deg Offset		25.0 Deg Offset	
		Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)
60' (18.3M) JIB & 200' (61.0M) BOOM	50	80.9	14,980*				
	60	78.7	14,550*	80.9	12,900*		
	70	76.5	14,130*	78.7	12,670*	80.7	11,330*
	80	74.2	13,770*	76.4	12,410*	78.4	11,260*
	90	71.9	13,380*	74.1	12,090*	76.1	10,980*
	100	69.6	11,380	71.7	11,390	73.7	10,710*
	110	67.2	9,660	69.3	9,660	71.3	9,670
	120	64.8	8,250	66.9	8,250	68.8	8,250
	130	62.3	7,070	64.4	7,080	66.3	7,080
	140	59.8	6,070	61.8	6,070	63.7	6,080
	150	57.2	5,210	59.2	5,210	61.0	5,220
	160	54.5	4,460	56.5	4,460	58.3	4,470
	170	51.7	3,810	53.7	3,820	55.4	3,820
	180	48.8	3,240	50.8	3,240	52.5	3,240
190	45.8	2,730	47.7	2,730	49.3	2,740	
200	42.6	2,270	44.5	2,280	46.0	2,280	
70' (21.3M) JIB & 180' (54.9M) BOOM	50	80.8	11,870*				
	60	78.5	11,420*				
	70	76.1	11,000*	78.8	9,560*		
	80	73.7	10,530*	76.4	9,190*	78.9	8,190*
	90	71.3	10,060*	74.0	8,820*	76.4	7,940*
	100	68.9	9,600*	71.5	8,520*	73.9	7,710*
	110	66.4	9,220*	69.0	8,240*	71.4	7,470*
	120	63.9	8,830	66.4	7,980*	68.8	7,290*
	130	61.3	7,650	63.8	7,650	66.1	7,140*
	140	58.6	6,650	61.1	6,650	63.4	6,660
	150	55.9	5,800	58.4	5,800	60.6	5,810
	160	53.0	5,050	55.5	5,050	57.6	5,060
	170	50.0	4,400	52.5	4,400	54.6	4,410
	180	46.9	3,820	49.4	3,830	51.4	3,830

Boom and Jib Length	Jib Radius (Feet)	5.0 Deg Offset		15.0 Deg Offset		25.0 Deg Offset	
		Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)	Boom Angle	Ratings (Pounds)
70' (21.3M) JIB & 190' (57.9M) BOOM	51	80.9	11,850*				
	60	78.9	11,460*				
	70	76.7	11,060*	79.2	9,620*		
	80	74.4	10,680*	76.9	9,240*	79.3	8,200*
	90	72.1	10,180*	74.6	8,900*	77.0	7,980*
	100	69.7	9,740*	72.3	8,590*	74.6	7,750*
	110	67.4	9,360*	69.9	8,320*	72.2	7,520*
	120	65.0	8,580	67.4	8,040*	69.7	7,340*
	130	62.5	7,400	64.9	7,410	67.2	7,180*
	140	60.0	6,400	62.4	6,410	64.6	6,410
	150	57.4	5,540	59.8	5,540	61.9	5,550
	160	54.7	4,800	57.1	4,800	59.2	4,810
	170	51.9	4,140	54.3	4,150	56.3	4,150
	180	49.0	3,580	51.3	3,580	53.3	3,580
190	46.0	3,060	48.3	3,060	50.2	3,070	
70' (21.3M) JIB & 200' (61.0M) BOOM	53	80.8	11,790*				
	60	79.3	11,490*				
	70	77.2	11,110*	79.6	9,660*	79.7	8,230*
	80	75.0	10,720*	77.4	9,310*	77.5	8,010*
	90	72.8	10,290*	75.2	8,980*	75.2	7,790*
	100	70.5	9,860*	73.0	8,670*	72.9	7,580*
	110	68.3	9,470*	70.7	8,380*	70.5	7,380*
	120	65.9	8,320	68.3	8,130*	68.1	7,150
	130	63.6	7,140	66.0	7,140	65.7	6,140
	140	61.2	6,140	63.5	6,140	63.1	5,280
	150	58.7	5,270	61.1	5,280	60.5	4,540
	160	56.2	4,530	58.5	4,540	57.8	3,880
	170	53.6	3,870	55.9	3,880	55.0	3,320
	180	50.8	3,310	53.1	3,310	52.1	2,800
190	48.0	2,790	50.3	2,790	49.0	2,350	
200	45.0	2,340	47.3	2,350			

## JIB COMPOSITION CHART

### #9HL Jib Composition

Jib Length Feet	20' Inner	10' Center	20' Outer	20' Outer
40	1	0	0	1
50	1	1	0	1
60	1	0	1	1
70	1	1	1	1

## MAXIMUM BOOM & JIB SELF-ERECTION DATA

#9HL JIB	Over The End		Over The Side (with Extenders in place)	
	Boom Length Ft.	Jib Length Ft.	Boom Length Ft.	Jib Length Ft.
	230	0	-	-
220	0	220	0	
210	20	210	0	
200	40	200	50	

## LOAD HOISTING INFORMATION

7/8" Diameter EIPS Wire Rope		
Maximum Lifting Capacity (Pounds)	Minimum Parts of Line	Maximum Auxiliary Hoisting Distance (Feet)
181,900	8	78
159,200	7	89
136,450	6	104
113,700	5	125
90,950	4	156
68,200	3	208
45,450	2	313
22,700	1	626

1" Diameter EIPS Wire Rope		
Maximum Lifting Capacity (Pounds)	Minimum Parts of Line	Maximum Main Hoisting Distance (Feet)
220,000	8	130
206,800	7	148
177,250	6	173
147,700	5	208
118,150	4	260
88,600	3	346
59,050	2	520
29,500	1	1,040

## BOOM COMPOSITION CHART

Boom Length Feet	Boom Sections				
	25' 59HI Inner	10' 59H Center	20' 59H Center	40' 59H Center	25' 59HI Outer
50	1	0	0	0	1
60	1	1	0	0	1
70	1	0	1	0	1
80	1	1	1	0	1
90	1	0	0	1	1
100	1	1	0	1	1
110	1	0	1	1	1
120	1	1	1	1	1
130	1	0	0	2	1
140	1	1	0	2	1
150	1	0	1	2	1
160	1	1	1	2	1
170	1	0	0	3	1
180	1	1	0	3	1
190	1	0	1	3	1
200	1	1	1	3	1
210	1	0	0	4	1
220	1	1	0	4	1
230	1	0	1	4	1

# HOIST DRUM PERFORMANCE

THIRD DRUM – 3/4" Diameter Rope			
Rope Layer	Line Speed (Feet per Minute)	Single Line Pull	Total Rope Length
1st*	225	18,000	108
2nd*	245	17,222	224
3rd*	262	16,094	348
4th*	279	15,104	480
5th*	296	14,230	620
6th**	314	N/A	769
7th**	331	N/A	925

6 x 25 RRL, EIPS, IWRC, 58,800# MBS; Part No. 809387

AUXILIARY DRUM – 7/8" Diameter Rope					
Rope Layer	High Range		Low Range		Total Rope Length
	Line Speed (Feet per Minute)	Single Line Pull	Line Speed (Feet per Minute)	Single Line Pull	
1st*	348	26,140	241	37,670	64
2nd*	377	24,100	262	34,720	128
3rd*	407	22,360	282	32,210	204
4th*	433	20,860	303	30,040	278
5th*	466	19,540	323	28,150	364
6th*	495	18,380	343	26,450	449
7th*	524	17,350	364	24,990	545
8th*	553	16,430	384	23,670	640
9th**	583	15,600	404	22,450	747
10th**	612	14,850	425	21,400	852

\*\*Single Line Pull reflects the maximum hydraulic capacity of the hoist unit at the given layer and range setting. The allowable single line pull may be limited by the strength of the hoist rope. See load hoisting table for rope limitations.

## CRANE RATING DATA

**⚠ WARNING** This rating chart is invalid if the crane has been modified or altered by use of other than **GENUINE AMERICAN PARTS** as such modifications or alterations may affect its capacity or safe operation. See American Crane Cooperation Service Bulletin #259.

The ratings in this chart are for planning purposes only. Only those ratings specifically assigned to a crane and mounted in the operator's cab or in the Operator's Manual should be used for actual operation.

Ratings in this chart are in POUNDS and do not exceed the percentage of tipping specified for this crane by ANSI B30.5. All ratings require that the crane be standing level on a firm uniformly supporting surface.

Do not lift loads in excess of those shown on this chart. Lifting loads in excess of those shown or operation not in accordance with good operating practice, including limitations shown on page 3499 of Operator's Manual, can cause tipping, structural damage or catastrophic failure.

Asterisk (\*) areas on this chart indicate ratings which are limited by strength of material or factors other than stability (tipping).

RADIUS IN FEET is the horizontal distance at ground level from the crane centerline of rotation to a vertical line through the center of gravity of the suspended load.

When using the main boom fall with jib in place, the main fall ratings must be reduced by the jib effective weight shown on the jib rating chart plus twice the weight of all suspended blocks, slings, rope, etc., at the jib fall.

Blocks, slings, buckets and other load carrying devices are considered part of the load. The weight of standard hoisting ropes for the rating at a given radius has been calculated as part of the boom point load and need not be considered in determining net allowable loads.

Ratings shown on this chart make no allowance for such factors as out of plumb loads, wind, poor soil conditions, improper inflation of rubber tires and dynamic effects due to excessive operating speeds. The user (operator) must exercise judgement to make allowance for these conditions. See page 3499 of Operator's Manual for detailed information.

No account is taken of the wind force on the load. This effect, which can be substantial for loads with large surface areas, must be considered by the user. In any wind it is strongly recommended that taglines be used to control the load.

BOOM HOIST LINE is 12 parts of 3/4 inch diameter IPS wire rope with a minimum breaking strength of 51,200 pounds.

PENDANT SUSPENSION LINE is 2 parts of 1-3/8 inch diameter EEIPS wire rope with a minimum breaking strength of 211,000 pounds.

JIB BACKSTAY AND FRONTSTAY LINES are 2 parts of 0.875 inch diameter IPS wire rope with a minimum breaking strength of 69,200 pounds.

MAIN LOAD LINE is 1.000 inch diameter EIPS wire rope with a minimum breaking strength of 103,400 pounds.

WHIP LINE is 7/8 inch diameter EIPS wire rope with a minimum breaking strength of 79,600 pounds.

### ERECTION

Erection "OVER THE END" is with the boom over the idler end with idler tumblers blocked (See operator's manual for blocking instructions). Erection "OVER THE SIDE" is with the boom 90° to the sideframes and with the side frames extended. Blocks, slings and other carrying devices must be on the ground during erection.

MAIN HOIST – 1" Diameter Rope					
Rope Layer	High Range		Low Range		Total Rope Length
	Line Speed (Feet per Minute)	Single Line Pull	Line Speed (Feet per Minute)	Single Line Pull	
1st*	322	28,210	224	40,640	105
2nd*	350	26,010	243	37,470	212
3rd*	377	24,130	261	34,760	335
4th*	404	22,500	281	32,420	459
5th*	431	21,080	299	30,370	599
6th*	459	19,830	318	28,570	741
7th*	486	18,720	337	26,960	898
8th*	513	17,720	357	25,530	1,056
9th**	540	16,830	375	24,240	1,232
10th**	568	16,020	394	23,080	1,407

\* = Working Layers • \*\* = Storage Layers

## SPECIFICATIONS

Swing Speed .....	3.00 RPM
Travel Speed .....	.87 MPH High Range
.....	0.6 MPH Low Range
Gradeability .....	30% (approximately 17°)



# LOADS FOR TRANSPORT – HC110 Machine with 200ft 59”H Boom & 70 ft Jib

Loads required as follows (weights shown do not include blocking or tie-down material):

## Load No. 1 – Step Deck

	<u>Lbs.</u>
2x Crawler Side Frame Counterweights (11,500 lbs each) .....	23,000
1x 40ft Boom Center Section with Pendants .....	2,670
1x 20ft Jib Inner .....	890
1x Upper Counterweight .....	4,400
<b>Total Load</b>	<b>30,960</b>

## Load No. 2 – Step Deck

	<u>Lbs.</u>
Middle Portion of Counterweight .....	12,100
1x 40ft Boom Center Section .....	2,670
1x 20ft Jib Inner .....	480
1x Upper Counterweight .....	4,400
<b>Total Load</b>	<b>19,650</b>

## Load No. 3 – Step Deck

	<u>Lbs.</u>
Lower Portion of Counterweight .....	32,000
1x 25ft Boom Outer Section .....	4,200
1x 20ft Boom Center Section with Pendants .....	1,975
Main Load Block .....	1,500
Overhaul Ball .....	650
<b>Total Load</b>	<b>40,325</b>

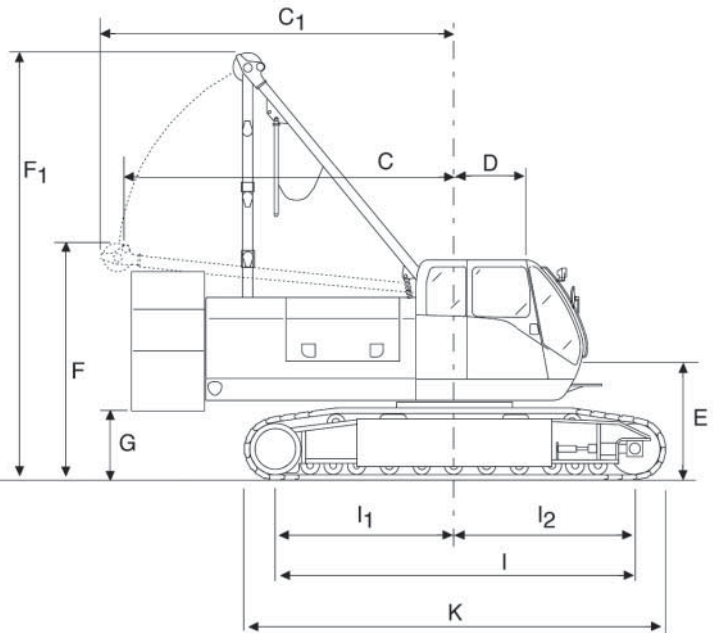
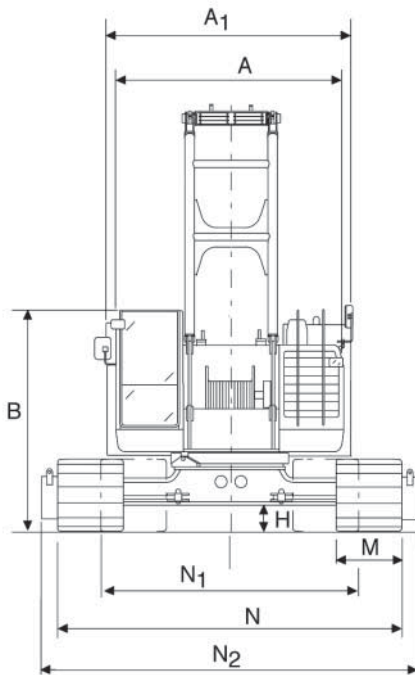
## Load No. 4 – Step Deck

	<u>Lbs.</u>
1x 10ft Boom Center Section .....	1,060
1x 40ft Boom Center Sections .....	2,670
10ft Jib Center Section .....	190
20ft Jib Center Section .....	385
<b>Total Load</b>	<b>4,305</b>

## Load No. 5 – Basic Crane

- Complete Upper Structure
- Carbody & Sideframes
- Retractable A-Frame
- Boom Inner Section and Boom Stops
- Third Drum

**Total Weight of Basic Crane, Etc. 105,000 Lbs.**



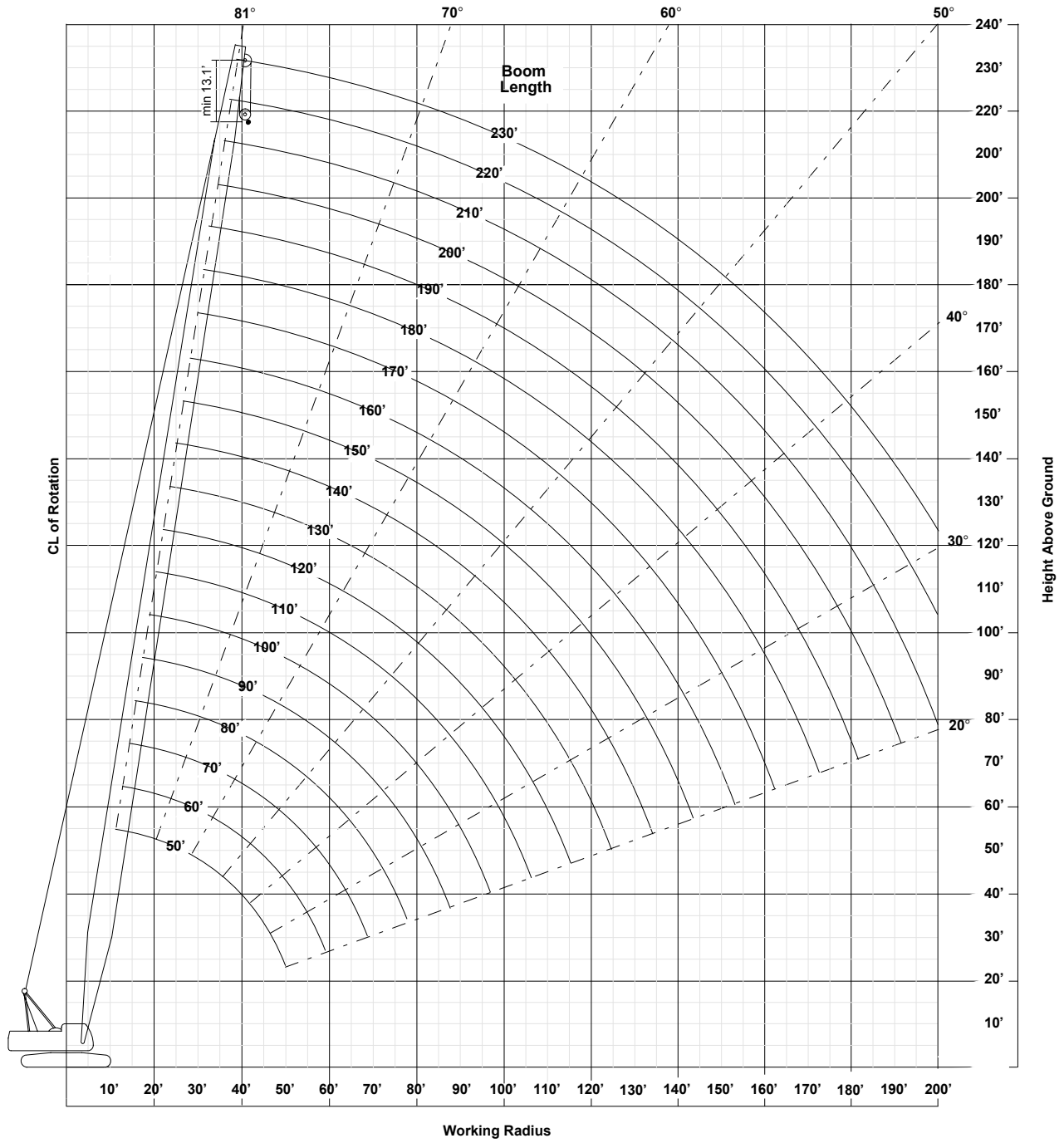
	<u>FT</u>	<u>MM</u>
A Width of machinery cab .....	11'-5/8"	3,369
A <sub>1</sub> Width of counterweight .....	11'-9 3/4"	3,423
B Height over operator's cab .....	11'-0"	3,353
C Tail swing .....	16'-4 7/8"	5,001
C <sub>1</sub> Center rotation to end of A-frame lowered .....	17'-5 7/8"	5,331
D Center rotation to boom foot .....	3'-7 1/4"	1,100
E Ground to center of boom foot .....	6'-4 1/2"	1,943
F Height over A-Frame lowered .....	11'-5 5/8"	3,496
F <sub>1</sub> Height over A-Frame raised .....	21'-9 1/8"	6,633
G Ground to bottom of counterweight .....	3'-9"	1,143
H Minimum ground clearance .....	1'-5"	432

	<u>FT</u>	<u>MM</u>
I Center to center of crawler tumbler .....	17'-11"	5,461
I <sub>1</sub> Center of drive tumbler to center of rotation .....	8'-11 1/2"	2,731
I <sub>2</sub> Center of idler tumbler to center of rotation .....	8'-11 1/2"	2,731
K Overall length of crawlers .....	20'-10 3/4"	6,370
M Width of tread shoe (standard) .....	36"	915
N Overall width of crawlers, Shoes Extended (Type A) ...	16'-2 5/8"	4,943
Overall width of crawlers, Shoes Extended (Type B) .....	17'-1/2"	5,195
N <sub>1</sub> Shoes Retracted .....	11'-9 3/4"	3,600
N <sub>2</sub> Width over sideframe counterweights extended		
Type A .....	17'-9 5/8"	5,655
Type B .....	18'-7 3/8"	5,675



# AMERICAN MODEL HC 110 WORKING RANGES WITH 59HI BOOM

## HC110 RANGE DIAGRAM 59HI BOOM







# AMERICAN HC 110

## Hydraulic Crawler Crane

Max. Lifting Capacity:

110 tons (80 mt)



Environmental operator's cab



Hydraulic removable counterweight system

## 230 ft. (70 m) MAXIMUM LIFT CRANE BOOM

- 59HI tubular chord boom, pin connected.
- 25 ft. (7.6 m) inner and outer and 10/20/40 ft. (3/6/12 m) available inserts provide boom compositions in 10 ft. (3 m) increments from 50 ft. (15.2 m) to 230 ft. (70 m).

## ENVIRONMENTAL OPERATOR'S CAB

- Designed to provide excellent viewing range and quiet, comfortable operation.
- 37 in. (.91 m) wide cab has wide curved windows on both top and bottom.
- Easy-to-operate modular and ergonomically designed controls reduce operator fatigue and increase productivity.
- Load Moment Indicator with interactive screen features a shockless stop system. Operator can select from three display modes: loaded condition diagram, rated lifting curve, and rated lifting load table.
- Adjustable operator's seat, radio, air conditioner, overhead window, sun visor, fan, overhead and front wipers, and drum rotation indicators standard.

## HEAVY DUTY CARBODY AND CRAWLERS

- Fabricated steel carbody is deep box constructed with square axles for the crawler side frames. Precision machined top supports anti-friction swing circle and multiple pass hydraulic swivel joint.

- Crawlers have high alloy steel tumbler yokes and rigid fabricated structures with built-in sealed automatic lubrication system.
- 36" (914 mm) crawler shoes.
- Travel mechanism is set within shoe width.
- Side frames extended or retracted by cylinders inside the carbody.
- Two travel speed settings – 0.60/0.87 mph (0.96/1.4 km/h).
- 30% (17°) gradeability.

## POWERFUL, HIGH-SPEED HOIST SYSTEM

- Independent main and auxiliary load hoisting drums. Main drum is grooved for 1 in. (25 mm) diameter rope. Max line speed is 513 fpm (156 m/min), max single line pull is 40,640 lbs. (18 435 kg). Rated single line pull is 29,500 lbs. (13 381 kg). Auxiliary drum is grooved for 7/8 in. (22.4 mm) diameter rope. Max line speed is 553 fpm (168 m/min), max single line pull is 37,670 lbs. (17 086 kg). Rated single line pull is 22,700 lbs. (10 297 kg). Freefall on main and auxiliary drums.
- Each drum, including optional third, has power up/down. Load hoists are further controllable in stepless mode.
- Ample work space in front of drums allows easy access for cable installation and maintenance.
- External contracting brake.
- Internal expanding band clutch.
- 3.0 rpm swing speed.

## HIGH CAPACITY, DEPENDABLE HYDRAULIC SYSTEM

- Open circuit system has 5 variable displacement piston pumps with system capacity of 183 gpm (692 lpm).
- Hydraulic reservoir with 79 gal. (300 l) capacity and 10 micron filtration.
- Component working range is between -4 and 203° F (-20 and 95° C).
- 230 HP (171 kW) @ 2000 RPM Cummins 6CTA 8.3 turbocharged diesel engine. Fuel tank capacity is 105 gal. (397 l).

## FOUR PIECE REMOVABLE COUNTERWEIGHT

- Four piece pin connected counterweight can be assembled or disassembled easily within minutes.
- Hydraulic counterweight removal system is standard and makes the HC 110 one of the most transportable cranes in its class.
- Moves on four trucks with full boom and #9HL jib. At 17 ft. 0.5 in. (5.2 m) wide and 11 ft. (3.35 m) high, the basic HC 110 will transport on a standard lowboy trailer.

## OPTIONS INCLUDE:

- Third drum.
- Automotive type lights.
- Hydraulic power take off.
- Jib and jib inserts.



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