

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™

Machines shown may have optional equipment.

AMERICAN HC 110

Hydraulic Crawler Crane

Max. Lifting Capacity: 110 tons (80 mt)

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.



Environmental operator's cab

- 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.



Hydraulic removable counterweight system

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 I).

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.

For more information, product demonstration, or details on purchase, lease and rental plans, please contact your local Terex Cranes Distributor.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty applicable to the particular product and sale. We make no other warranty, expressed or implied.

THE **ULTIMATE** CRANE™



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BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	360 DEGREE RATING (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
50' BOOM	13 15 20 25 30 35 40 50	79.9 77.6 71.6 65.4 58.9 51.9 44.1 22.7	220,000 * 190,080 * 123,290 87,670 67,640 54,900 46,010 34,480	56 55 54 52 49 46 41
60 BOOM	14 15 20 25 30 35 40 50	80.7 79.7 74.8 69.7 64.5 59.1 53.3 40.0 20.6	203,570 * 189,950 * 123,100 87,490 67,430 54,700 45,790 34,250 27,130	66 65 64 63 61 58 54 45
70 ¹ BOOM	16 20 25 30 35 40 50 60	80.3 77.0 72.8 68.4 63.9 59.2 49.0 36.9	177,910 * 122,950 87,320 67,250 54,530 45,620 34,050 26,960 22,070	75 75 73 71 69 67 59 48 29
BOOM	17 20 25 30 35 40 50 60 70	80.8 78.7 75.0 71.2 67.4 63.4 55.0 45.7 34.4	161,850 122,740 87,130 67,020 54,310 45,380 33,810 26,730 21,840 18,300	85 85 84 82 80 78 72 64 52 31
BOOM	19 20 25 30 35 40 50 60 70 80 90	80.6 79.9 76.7 73.4 70.0 66.6 59.4 51.6 42.9 32.3 16.7	133,440 122,580 86,970 66,860 54,150 45,210 33,630 26,570 21,670 18,120 15,440	95 95 94 93 91 89 84 77 68 55

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BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	360 DEGREE RATING (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
100' BOOM	20 25 30 35 40 50 60 70 80 90	80.9 78.0 75.1 72.1 69.0 62.7 56.0 48.8 40.6 30.6 15.8	122,380 86,760 66,630 53,930 44,980 33,380 26,340 21,430 17,880 15,190 13,090	105 104 103 102 100 95 89 82 71 57
110 ' BOOM	22 25 30 35 40 50 60 70 80 90 100	80.7 79.1 76.5 73.8 71.0 65.4 59.5 53.2 46.4 38.6 29.1	105,050 86,580 66,410 53,720 44,760 33,160 26,130 21,220 17,650 14,960 12,860 11,180	115 114 113 112 110 106 101 94 86 75 60 35
120 ' BOOM	24 25 30 35 40 50 60 70 80 90 100 110	80.5 80.1 77.6 75.2 72.7 67.6 62.3 56.7 50.8 44.3 36.9 27.9 14.4	91,640 86,370 66,180 53,490 44,530 32,910 25,890 20,970 17,410 14,720 12,600 10,910 9,540	125 125 124 122 121 117 113 107 99 90 78 62 36
130 BOOM	25 30 35 40 50 60 70 80 90 100 110 120 130	80.8 78.6 76.3 74.0 69.4 64.6 59.6 54.3 48.6 42.4 35.4 26.7 13.8	86,180 65,990 53,300 44,340 32,700 25,690 20,770 17,210 14,510 12,400 10,700 9,310 8,160	135 134 133 131 128 124 118 112 104 94 82 65

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		BOOM	360 DEGREE	FROM BOOM POINT
BOOM	RADIUS	ANGLE	RATING	TO GROUND
LENGTH	(FEET)	(DEGREES)	(POUNDS)	(FEET)
	27		76,660	145
140'	30	79.4	65,750	144
BOOM	35	77.3	53,070	143
	40	75.2	44,100	142
	50	70.9	32,450	139
	60	66.5	25,450	135
İ	70	62.0	20,530	130
	80	57.2	16,960	124
	90	52.2	14,260	117
	100	46.8	12,140	108
	110	40.8	10,440	98
	120	34.0	9,050	85
	130	25.7	7,890	67
	140	13.3	6,920	39
	28	80.9	72,450	154
150'	30	80.1	65,530	154
BOOM	35	78.2	52,860	153
	40	76.2	43,870	152
	50	72.2	32,220	149
	60	68.2	25,230	146
	70	64.'0	20,300	141
	80	59.6	16,730	136
	90	55.1	14,020	129
	100	50.3	11,910	122
	110	45.1	10,210	113
	120	39.4	8,810	102
	130	32.8	7,640	88
	140	24.9	6,670	69
	150	12.8	5,840	40
	30	80.7 I	65,300	164
160'	35	78.9	52,640	163
BOOM	40	77.1	43,640	162
20011	50	73.4	31,960	160
.	60	69.6	24,990	156
	70	65.7	20,060	152
	80	61.7	16,480	147
	90	57.6	13,770	141
	100	53.2	11,650	134
	110	48.6	9,950	126
	120	43.6	8,550	117
	130	38.1	•	! !
	140	31.8	7,380	105
	150	24.0	6,400	91 72
	160	12.4	5,550	
	TOO	14.4	4,850	41

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BOOM LENGTH	RADIUS (FEET)	BOOM ANGLE (DEGREES)	360 DEGREE RATING (POUNDS)	FROM BOOM POINT TO GROUND (FEET)
170 BOOM	31 35 40 50 60 70 80 90 100 110 120 130 140 150 160	80.9 79.6 77.9 74.4 70.8 67.2 63.5 59.7 51.5 47.0 42.2 36.9 30.8 23.3 12.1	62,050 52,430 43,420 31,740 24,780 19,850 16,270 13,560 11,430 9,730 8,320 7,150 6,160 5,320 4,600 3,990	174 174 173 170 167 163 159 153 147 139 131 121 108 93 74 42
1.80 ' BOOM	33 35 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180	80.8 80.2 78.6 75.3 71.9 68.6 65.1 61.5 57.8 54.0 49.9 45.6 41.0 35.8 29.9 22.6 11.7	56,790 52,200 43,200 31,490 24,560 19,600 16,020 13,310 11,180 9,470 8,070 6,890 5,900 5,060 4,330 3,690 3,150	184 184 183 180 178 174 170 165 159 152 144 135 124 112 96 76 43
190' BOOM	34 35 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190	81.0 80.7 79.2 76.1 72.9 69.7 66.5 63.2 59.7 56.2 52.4 48.5 44.3 39.8 34.8 29.1 22.0 11.4	52,440 * 51,980 42,970 31,260 24,330 19,370 15,790 13,070 10,940 9,230 7,820 6,650 5,660 4,810 4,070 3,430 2,880 2,410	194 194 193 191 188 185 181 176 170 164 157 149 139 128 115 99 78 44

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BOOM	DADTIA	BOOM	360 DEGREE	FROM BOOM POINT
LENGTH	RADIUS	ANGLE	RATING	TO GROUND
DENGIU	(FEET)	(DEGREES)	(POUNDS)	(FEET)
	36	80.9	46,580 *	204
200 '	40	79.7	42,730	203
BOOM	50	76.8	31,010	201
İ	60	73.8	24,090	198
	70	70.8	19,130	195
	80	67.7	15,540	191
	90	64.6	12,820	187
	100	61.4	10,690	182
	110	58.0	8,980	176
	120	54.6	7,570	169
	130	51.0	6,390	162
	140	47.2	5,390	153
	150	43.1	4,540	143
	160	38.8	3,800	132
	170	33.9	3,170	118
	180	28.3	2,610	101
	190	21.5	2,120	80
	200	11.1	1,700	45
	38	80.8	41,260 *	214
210'	40	80.2	40,530 *	214
BOOM	50	77.4	30,780	211
200.1	60	74.6	23,870	209
	70	71.7	18,910	206
	80	68.8	15,320	202
	90	65.9	12,600	198
	100	62.9	10,470	193
	110	59.7	8,750	188
	1.20	56.5	7,340	182
	130	53.2	6,160	174
	140	49.7	5,170	166
	150		4,310	157
	160	42.0	3,570	147
	170	37.8	2,920	135
	180	33.0	2,360	121
	190	27.6	1,860	104

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			BOOM	360 DEGREE	FROM BOOM POINT
	BOOM	RADIUS	ANGLE	RATING	TO GROUND
-	LENGTH	(FEET)	(DEGREES)	(POUNDS)	(FEET)
1		 39	80.9	 I ac aan #	
	220 '	40	80.9	36,220 * 35,920 *	224
ł	BOOM	50	78.0	30,530	222
	БООМ	60	75.3	23,640	!
		70	72.6	18,670	219 216
		80	69.8	15,080	213
-		90	67.1	12,350	209
-		100	64.2	10,220	204
ł		110	61.3	8,490	199
		120	58.2	7,090	193
		130	55.1	5,900	187
i		140	51.9	4,900	179
		150	48.5	4,050	171
i		160	44.9	3,300	162
İ		170	41.0	2,650	151
İ		180	36.9	2,090	138
İ		190	32.3	1,590	124
		41	80.8	31,600 *	233
	230'	50	78.5	27,960 *	232
	BOOM	60	76.0	23,410	230
		70	73,4	18,440	227
		80	70.8	14,840	224
-		90	68.1	12,110	220
		100	65.4	9,970	215
-		110	62.6	8,250	211
		120	59.8	6,830	205
		130 140	56.8	5,660	199
		150	53.8	4,660	192
		160	50.6 47.3	3,800	184
-		170		3,060	175
-		180	43.8 40.1	2,410	166
ı	1	100	40.1	1,840	154

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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 Corporation Service Bulletin #259.

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 that 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. See Appendix A.

When using the main boom fall with boom tip extension in place, the main fall ratings must be reduced by the weight of the boom tip extension plus twice the weight of all suspended blocks, slings, rope, etc., at the boom tip extension fall. See Appendix A.

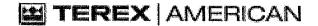
Blocks, slings, buckets and other load carrying devices are considered part of the load. The weight of standard hoisting ropes for the rating at a given radius has been calculated as part of the boom point load and need not be considered in determining net allowable loads. See Appendix A.

This chart was developed exclusively for use with a boom only. Under no circumstances are these ratings to be interpreted for use with a jib.

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 judgment 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. The user must consider this effect, which can be substantial for loads with large surface areas. In any wind it is strongly recommended that taglines be used to control the load.

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BOOM HOIST LINE -

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

PENDANT SUSPENSION LINE -

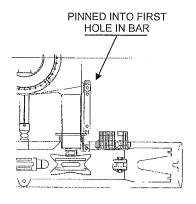
2 parts of 1-3/8 inch diameter EEIPS wire rope with a minimum breaking strength of 211,000 pounds.

MAIN LOAD LINE -

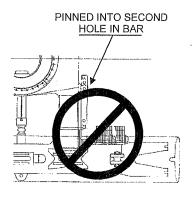
1.000 inch diameter EIPS wire rope with a minimum breaking strength of 103,400 pounds 0.875 inch diameter EIPS wire rope with a minimum breaking strength of 79,600 pounds

SIDEFRAME POSITION DEFINITIONS

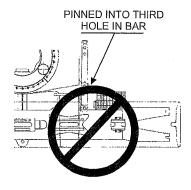
These ratings are valid for the sideframe positions as indicated below. Refer to the *HC110 Operator's Manual* for additional information.



SIDEFRAMES FULLY EXTENDED (EXTENDERS IN PLACE)



SIDEFRAMES MID-EXTENDED



SIDEFRAMES FULLY RETRACTED

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ERECTION

Erection "OVER-THE-END BLOCKED" is with the boom over the <u>idler</u> end with idler tumblers blocked (See *HC110 Operator's Manual* for blocking instructions). Erection "OVER-THE-SIDE" is with the boom 90° to the sideframes. Blocks, slings and other load carrying devices must be on the ground during erection.

59HI OFFSET TIP BOOM MAXIMUM BOOM & JIB SELF-ERECTION DATA						
			OVER-THE-SIDE			
	OVER-THE-EI	ND BLOCKED	SIDEFRAMES FULLY-EXTENDED			
			(WITH EXTEND	ERS IN PLACE)		
JIB	BOOM LENGTH (FEET)	JIB LENGTH (FEET)	BOOM LENGTH (FEET)	JIB LENGTH (FEET)		
9HL	230 220 210 200	0 0 40 70	210 200 190 180	0 0 40 70		

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LOAD HOISTING INFORMATION - 1.00" diameter EIPS wire rope						
MAXIMUM LIFTING	MINIMUM	MAXIMUM HOISTING DISTANCE - FEET				
CAPACITY - LBS.	PARTS OF LINE	MAIN HOIST	AUX HOIST			
220,000 206,800 177,250 147,700 118,150 88,600 59,050 29,500	8 7 6 5 4 3 2	130 148 173 208 260 346 520 1040	NOT APPLICABLE			

LOAD HOISTING INFORMATION - 7/8" diameter EIPS wire rope							
MAXIMUM LIFTING	MINIMUM PARTS OF LINE	MAXIMUM HOISTING DISTANCE - FEET					
CAPACITY - LBS.		MAIN HOIST	AUX HOIST				
181,900 159,200 136,450 113,700 90,950 68,200 45,450 22,700	8 7 6 5 4 3 2 1	NOT APPLICABLE	78 89 104 125 156 208 313 626				

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	BOOM COMPOSITION CHART - 59HI OFFSET TIP					
		BOOM SECTIONS				
BOOM LENGTH (FEET)	25' 59HI INNER	10' 59H CENTER	20' 59H CENTER	40' 59H CENTER	25' 59HI OUTER	
50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 1 0 1 0 1 0 1 0 1 0 1 0	0 0 1 1 0 0 1 1 0 0 1 1 0 0	0 0 0 1 1 1 1 2 2 2 2 2 3 3 3 3 4 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

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