

LIFT RATINGS IN POUNDS (continued)

With 77LH Hammerhead Boom, 29' Floating Mast, 89,000 lb. Counterweight and 48,000 lb. Side Frame Counterweight

Boom Length (Feet)	Rad. Feet	Boom Angle Degrees	Counterweight Retracted Pounds	Counterweight Extended Pounds	From Boom Pt. to Ground Feet	
190 feet (cont.)	70	70.3	46,320	49,780	186	
	80	67.1	38,070	41,040	182	
	90	63.8	32,260	34,860	177	
	100	60.4	27,430	29,740	172	
	110	56.8	23,550	25,630	165	
	120	53.1	20,380	22,270	158	
	130	49.2	17,730	19,470	150	
	140	45.1	15,490	17,090	140	
	150	40.6	13,570	15,060	129	
	160	35.7	11,910	13,300	116	
	170	30.1	10,440	11,740	100	
180	23.2	9,160	10,380	80		
190	13.2	7,560 *	7,560 *	48		
200 feet	27	84.0	98,040 *	98,040 *	206	
	30	83.1	97,360 *	97,360 *	206	
	35	81.7	96,620 *	96,620 *	205	
	40	80.2	94,590 *	94,590 *	204	
	50	77.3	74,450	79,610	202	
	60	74.4	57,710	61,850	200	
	70	71.4	46,200	49,650	197	
	80	68.3	37,960	40,920	193	
	90	65.2	32,180	34,780	188	
	100	62.0	27,350	29,660	183	
	110	58.7	23,480	25,560	177	
120	55.3	20,310	22,200	171		
130	51.7	17,670	19,410	163		
140	47.9	15,440	17,040	154		
150	43.9	13,520	15,000	144		
160	39.6	11,860	13,250	133		
170	34.8	10,400	11,700	119		
180	29.3	9,120	10,350	103		
190	22.6	7,990	9,140	82		
200	12.9	6,290 *	6,290 *	49		
210 feet	28	84.0	90,630 *	90,630 *	216	
	30	83.4	90,200 *	90,200 *	216	
	35	82.1	89,420 *	89,420 *	215	
	40	80.7	88,720 *	88,720 *	215	
	50	77.9	74,230	79,390	213	
	60	75.1	57,470	61,610	210	
	70	72.3	45,920	49,380	207	
	220 feet	33	83.0	83,100 *	83,100 *	226
		35	82.4	82,250 *	82,250 *	226
		40	81.1	81,350 *	81,350 *	225
		50	78.5	73,950	76,970 *	223
60		75.8	57,180	61,320	220	
70		73.1	45,620	49,080	218	
80		70.4	37,350	40,320	214	
90		67.6	31,610	34,200	210	
100		64.7	26,760	29,060	206	
110		61.8	22,870	24,950	200	
120		58.8	19,680	21,580	195	
130	55.7	17,040	18,770	188		
140	52.5	14,790	16,400	181		
150	49.1	12,870	14,360	172		
160	45.5	11,200	12,590	163		
170	41.7	9,740	11,040	152		
180	37.6	8,450	9,680	140		
190	33.1	7,320	8,480	125		
200	27.9	6,300	7,400	108		
210	21.5	5,380	6,010 *	86		
220	12.2	3,150 *	3,150 *	51		
230 feet	31	83.8	76,480 *	76,480 *	236	
	35	82.8	75,820 *	75,820 *	236	
	40	81.5	74,920 *	74,920 *	235	
	50	79.0	71,570 *	71,570 *	233	
	60	76.4	56,930	61,060	231	
	240 feet	32	83.8	70,550 *	70,550 *	246
		35	82.8	70,070 *	70,070 *	246
		40	81.9	68,970 *	68,970 *	245
		50	79.4	66,230 *	66,230 *	243
		60	77.0	56,620	60,760	241
		70	74.6	45,020	48,480	238
80		72.1	36,710	39,680	235	
90		69.5	30,990	33,590	232	
100		67.0	26,120	28,430	228	
110		64.3	22,220	24,300	223	
120		61.7	19,030	20,920	218	
130	58.9	16,360	18,100	212		
140	56.1	14,110	15,710	205		
150	53.1	12,170	13,660	198		
160	50.1	10,500	11,890	190		
170	46.9	9,040	10,330 *	181		
180	43.5	7,750	7,960 *	171		
190	39.9	6,170 *	6,170 *	159		
200	36.0	4,470 *	4,470 *	146		
210	31.6	2,930 *	2,930 *	131		
220	26.6	1,570 *	1,570 *	113		

LIFT RATINGS IN POUNDS

With 77LH Offset Tip Boom, 29' Floating Mast, 89,000 lb. Counterweight and 48,000 lb. Side Frame Counterweight

Boom Length (Feet)	Rad. Feet	Boom Angle Degrees	Counterweight Retracted Pounds	Counterweight Extended Pounds	From Boom Pt. to Ground Feet	
80 feet	18	80.4	235,130 *	235,130 *	85	
	20	79.0	235,130 *	235,130 *	85	
	25	75.3	197,420 *	198,950 *	84	
	30	71.6	161,730	165,780 *	82	
	35	67.7	129,030	137,230	80	
	40	63.8	107,090	113,940	78	
	50	55.4	79,400	84,560	72	
	60	46.0	62,600	66,740	63	
	70	34.7	51,430	54,890	51	
	80	17.9	43,320	46,290	30	
	90 feet	19	80.9	234,970 *	234,970 *	95
20		80.2	234,970 *	234,970 *	95	
25		77.0	196,010 *	198,800 *	94	
30		73.7	161,450	165,660 *	93	
35		70.3	128,710	136,900	91	
40		66.9	106,750	113,600	89	
50		59.7	79,050	84,210	84	
60		51.9	62,220	66,360	77	
70		43.2	51,070	54,530	67	
80		32.6	42,990	45,960	54	
90		16.9	36,900	39,490	32	
100 feet	21	80.6	232,640 *	234,810 *	105	
	25	78.3	195,050 *	198,660 *	104	
	30	75.3	161,270	165,530 *	103	
	35	72.4	128,500	136,700	102	
	40	69.3	106,540	113,390	100	
	50	63.0	78,820	83,980	95	
	60	56.3	61,980	66,120	89	
	110 feet	22	81.0	219,970 *	225,560 *	115
		25	79.4	193,760 *	198,510 *	115
		30	76.7	160,950 *	165,410 *	114
		35	74.0	128,190	136,380	112
40		71.3	106,200	113,060	111	
50		65.7	78,450	83,610	107	
60		59.7	61,580	65,720	101	
70		53.5	50,460	53,920	94	
80		46.6	42,360	45,320	86	
90		38.8	36,270	38,870	75	
100		29.3	31,450	33,850	60	
120 feet	24	80.8	200,390 *	206,470 *	125	
	25	80.3	192,410 *	198,370 *	125	
	30	77.8	160,060 *	165,280 *	124	
	35	75.4	127,920	136,120	123	
	40	72.9	105,930	112,790	121	
	50	67.8	78,180	83,340	117	
	60	62.5	61,280	65,420	113	
	70	57.0	50,170	53,630	107	
	80	51.0	42,070	45,030	99	
	90	44.5	35,970	38,570	90	
	100	37.1	31,240	33,540	78	
130 feet	26	80.6	183,690 *	190,540 *	135	
	30	78.8	159,530 *	165,160 *	134	
	35	76.5	128,010	136,210	133	
	40	74.2	106,050	112,900	132	
	50	69.6	78,310	83,470	128	
	60	64.8	61,420	65,560	124	
	70	59.8	50,340	53,790	119	
	80	54.5	42,240	45,200	112	
	90	48.8	36,150	38,750	104	
	100	42.6	31,420	33,730	94	
	110	35.5	27,770	29,710	81	
140 feet	27	80.8	175,500 *	183,280 *	145	
	30	79.6	158,250 *	165,040 *	144	
	35	77.5	127,770	135,960	143	
	40	75.4	105,760	112,620	142	
	50	71.1	78,000	83,160	139	
	60	66.7	61,070	65,210	135	
	70	62.2	49,980	53,440	130	
	80	57.4	41,870	44,840	124	
	90	52.3	35,770	38,370	117	
	100	46.9	31,020	33,330	108	
	110	41.0	27,400	29,300	98	
120	34.2	24,280	26,170	84		

LIFT RATINGS IN POUNDS (continued)

With 77LH Offset Tip Boom, 29' Floating Mast,
89,000 lb. Counterweight and 48,000 lb. Side Frame Counterweight

Boom Length (Feet)	Rad. Feet	Boom Angle Degrees	Counterweight Retracted Pounds	Counterweight Extended Pounds	From Boom Pt. to Ground Feet	Boom Length (Feet)	Rad. Feet	Boom Angle Degrees	Counterweight Retracted Pounds	Counterweight Extended Pounds	From Boom Pt. to Ground Feet	Boom Length (Feet)	Rad. Feet	Boom Angle Degrees	Counterweight Retracted Pounds	Counterweight Extended Pounds	From Boom Pt. to Ground Feet
280 feet	49	80.9	44,110 *	44,110 *	283	280 feet (cont.)	120	65.7	20,330	22,220	261	280 feet (cont.)	200	45.7	6,990	8,090	206
	50	80.7	44,110 *	44,110 *	283		130	63.4	17,690	19,420	257		210	42.7	6,080	7,120	196
	60	78.6	41,640 *	41,640 *	281		140	61.1	15,450	17,050	251		220	39.6	5,250	6,250	184
	70	76.5	39,640 *	39,640 *	279		150	58.7	13,530	15,020	245		230	36.3	4,510	5,460	171
	80	74.4	37,750 *	37,750 *	276		160	56.3	11,870	13,260	239		240	32.6	3,830	4,740	157
	90	72.3	31,670	34,270	273		170	53.8	10,420	11,730	232		250	28.6	3,210	3,640 *	140
	100	70.1	27,370	29,160	270		180	51.2	9,140	10,370	224		260	23.9	2,660	2,780 *	119
	110	67.9	23,500	25,580	266		190	48.5	8,010	9,160	216		270	18.1	1,420 *	1,420 *	93

BOOM COMPOSITION CHART

77LH Hammerhead Boom

Boom Length (Meters)	Boom Length (Feet)	Boom Sections					
		9.1M 30' 77SA Inner	3.0M 10' 77S Center	6.1M 20' 77S Center	15.2M 50' 77L Center	5.9M 19.5' 77HL Outer	0M 0' Hammerhead
15.2 M	50	1	0	0	0	1	1
18.3 M	60	1	1	0	0	1	1
21.3 M	70	1	0	1	0	1	1
24.4 M	80	1	1	1	0	1	1
27.4 M	90	1	0	2	0	1	1
30.5 M	100	1	0	0	1	1	1
33.5 M	110	1	1	0	1	1	1
36.6 M	120	1	0	1	1	1	1
39.6 M	130	1	1	1	1	1	1
42.7 M	140	1	0	2	1	1	1
45.7 M	150	1	0	0	2	1	1
48.8 M	160	1	1	0	2	1	1
51.8 M	170	1	0	1	2	1	1
54.9 M	180	1	1	1	2	1	1
57.9 M	190	1	0	2	2	1	1
61.0 M	200	1	0	0	3	1	1
64.0 M	210	1	1	0	3	1	1
67.1 M	220	1	0	1	3	1	1
70.1 M	230	1	1	1	3	1	1
73.2 M	240	1	0	2	3	1	1

77LH Offset Tip

Boom Length (Meters)	Boom Length (Feet)	Boom Sections					
		9.1M 30' 77SA Inner	3.0M 10' 77S Center	6.1M 20' 77S Center	15.2M 50' 77L Center	5.9M 19.5' 77HL Outer	9.1M 30' 77LA Offset Tip
24.4 M	80	1	0	0	0	1	1
27.4 M	90	1	1	0	0	1	1
30.5 M	100	1	0	1	0	1	1
33.5 M	110	1	1	1	0	1	1
36.6 M	120	1	0	2	0	1	1
39.6 M	130	1	0	0	1	1	1
42.7 M	140	1	1	0	1	1	1
45.7 M	150	1	0	1	1	1	1
48.8 M	160	1	1	1	1	1	1
51.8 M	170	1	0	2	1	1	1
54.9 M	180	1	0	0	2	1	1
57.9 M	190	1	1	0	2	1	1
61.0 M	200	1	0	1	2	1	1
64.0 M	210	1	1	1	2	1	1
67.1 M	220	1	0	2	2	1	1
70.1 M	230	1	0	0	3	1	1
73.2 M	240	1	1	0	3	1	1
76.2 M	250	1	0	1	3	1	1
79.2 M	260	1	1	1	3	1	1
82.3 M	270	1	0	2	3	1	1
85.3 M	280	1	0	0	4	1	1

GROUND PRESSURE

Lifting crane with 50' (15.2 mm) boom with Hammerhead Tip and standard counterweight

44' (1,117 M) shoes	9.80 psi
50' (1,270 M) shoes	8.60 psi

HC 210 HYDRAULIC CRAWLER SPECIFICATIONS

⚠ WARNING

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.

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 (Kgs) 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.

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.

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.

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 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.

MAST HOIST LINE is 17 parts of .75 inch (19 mm) diameter 6 x 26, WS, FW, RAL, IWRC, EIPS wire rope with a minimum breaking strength of 58,800 pounds (26,672 Kg).

PENDANT SUSPENSION LINE is 2 parts of 1.375 inch (35 mm) diameter monolay wire rope with a minimum breaking strength of 208,000 pounds (94,349 Kg).

MAIN LOAD LINE is 1.125 inch (29 mm) diameter 6 x 25, RRL, IWRC, EIPS wire rope with a minimum breaking strength of 130,000 pounds (58,968 Kg).

Auxiliary Load Line is 1 inch (25mm) diameter 6x25, RRL, IWRC, EIPS wire rope with a minimum breaking strength of 103,400 pounds (46,901 kgs).

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 side frames and with the side frames extended. Blocks, slings and other load carrying devices must be on the ground during erection.



LOAD HOISTING INFORMATION

77LH Hammerhead Boom

Max. Lifting Capacity (Lbs.)	Minimum Parts of Line	Max. Hoisting Distance - Feet	
		Main (Front)	Aux. (Rear)
420,000	12	110	110
408,540	11	120	120
371,060	10	130	130
334,260	9	150	150
297,120	8	170	170
259,980	7	190	190
222,840	6	220	220
185,700	5	270	270
148,560	4	340	340
111,420	3	450	450
74,280	2	680	680
37,140	1	1,360	1,360

Max. Lifting Capacity (Tonnes)	Minimum Parts of Line	Max. Hoisting Distance - Meters	
		Main (Front)	Aux. (Rear)
190.50	12	33.5 M	33.5 M
185.31	11	36.5 M	36.5 M
168.31	10	39.6 M	39.6 M
151.65	9	45.7 M	45.7 M
134.80	8	51.8 M	51.8 M
117.95	7	57.9 M	57.9 M
101.10	6	67.1 M	67.1 M
84.25	5	82.3 M	82.3 M
69.40	4	103.6 M	103.6 M
50.55	3	137.2 M	137.2 M
33.70	2	207.3 M	207.3 M
16.85	1	414.5 M	414.5 M

77LH Offset Tip

Max. Lifting Capacity (Lbs.)	Minimum Parts of Line	Max. Hoisting Distance - Feet	
		Main (Front)	Aux. (Rear)
235,130	7	190	190
222,840	6	220	220
185,700	5	270	270
148,560	4	340	340
111,420	3	450	450
74,280	2	680	680
37,140	1	1,360	1,360

Max. Lifting Capacity (Tonnes)	Minimum Parts of Line	Max. Hoisting Distance - Meters	
		Main (Front)	Aux. (Rear)
106.65	7	57.9 M	57.9 M
101.10	6	67.1 M	67.1 M
84.25	5	82.3 M	82.3 M
69.40	4	103.6 M	103.6 M
50.55	3	137.2 M	137.2 M
33.70	2	207.3 M	207.3 M
16.85	1	414.5 M	414.5 M

MAXIMUM BOOM & JIB SELF ERECTION DATA

77LH Hammerhead Boom

	Over the End		Over the Side	
	Boom Length (Ft.)	Jib Length (Ft.)	Boom Length (Ft.)	Jib Length (Ft.)
#16HL JIB	240	0	220	40
	230	40	210	50
	220	60	200	70
	210	80	-	-

	Over the End		Over the Side	
	Boom Length (Meters)	Jib Length (Meters)	Boom Length (Meters)	Jib Length (Meters)
#16HL JIB	73.2	0	67.1	12.2
	70.1	12.2	64.0	15.2
	67.1	18.3	61.0	21.3
	64.0	24.4	-	-

77LH Offset Tip

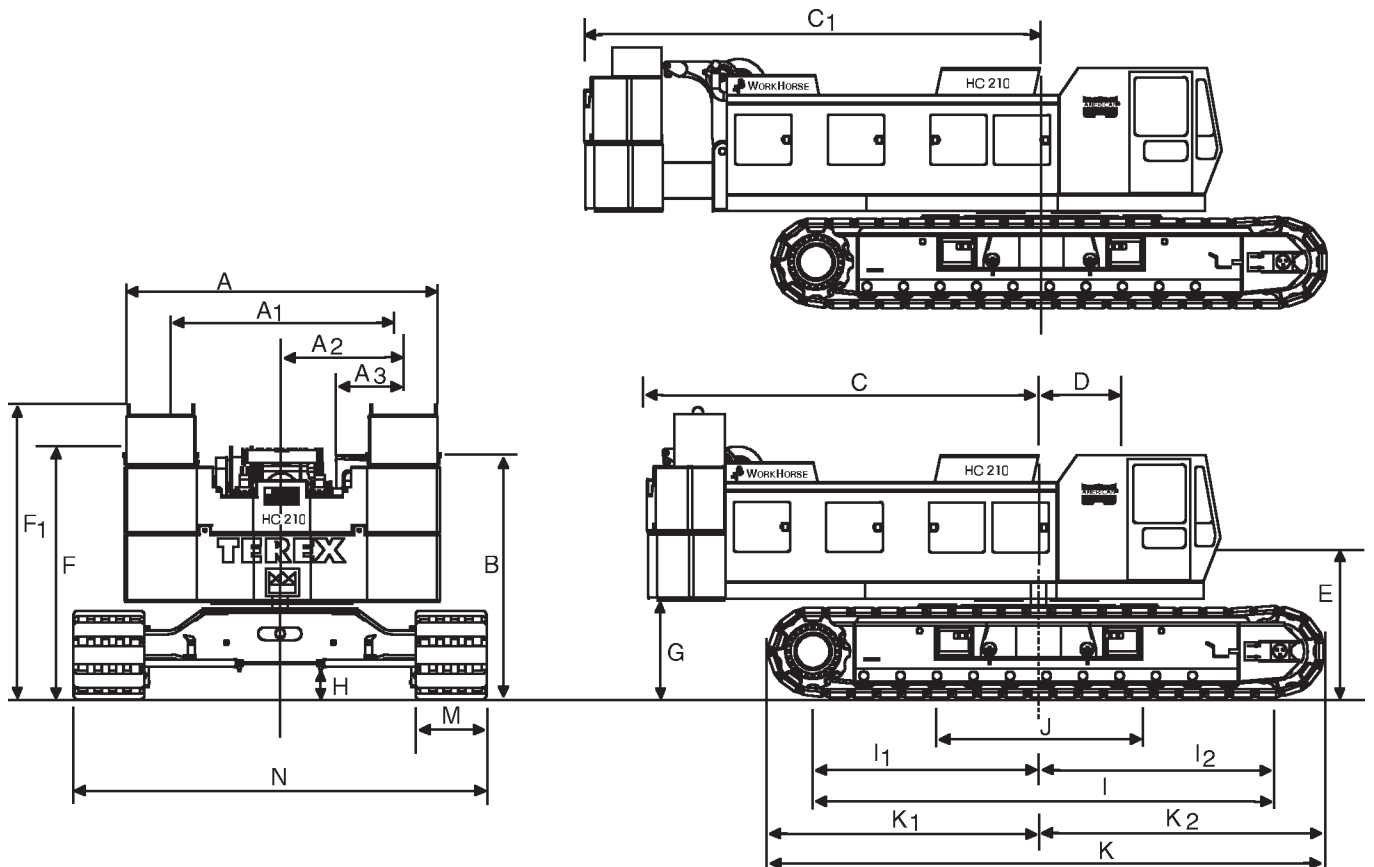
	Over the End		Over the Side	
	Boom Length (Ft.)	Jib Length (Ft.)	Boom Length (Ft.)	Jib Length (Ft.)
#16HL JIB	280	0	250	40
	270	60	240	50
	260	80	230	70
	250	100	220	80

	Over the End		Over the Side	
	Boom Length (Meters)	Jib Length (Meters)	Boom Length (Meters)	Jib Length (Meters)
#16HL JIB	85.3	0	76.2	12.2
	82.3	18.3	73.2	15.2
	79.2	24.4	70.1	21.3
	76.2	30.5	67.1	24.4

WEIGHTS

	LBS.	KG.		LBS.	KG.
Lifting Crane with standard counterweight, 50' (15.2 m) boom with hammerhead tip, transport package, 3rd Drum and 44" (965 mm) shoes	315,080	142,958	Crane boom outerbase	2,890	1,085
Main Counterweight – Total	89,000	40,370	Crane boom inner, misc. & 3rd drum	8,015	3,636
Lower with 2-Removal Cylinders	35,000	15,880	Crawler Side Frames 44" (1,117 mm) shoes	76,160	34,545
Middle Overlay	35,000	15,880	Travel weight includes upper, carbody, transportation package, boom inner, counterweight handling sheaves and third drum	94,060	42,676
Upper Overlays (2)	19,000	8,618	Travel weight includes upper, carbody, but NO boom inner, transport package, 3rd drum	84,045	38,132
Crawler side frame counterweight (4)	48,000	21,775			
Crane boom outer hammerhead (six sheave)	4,970	2,255			

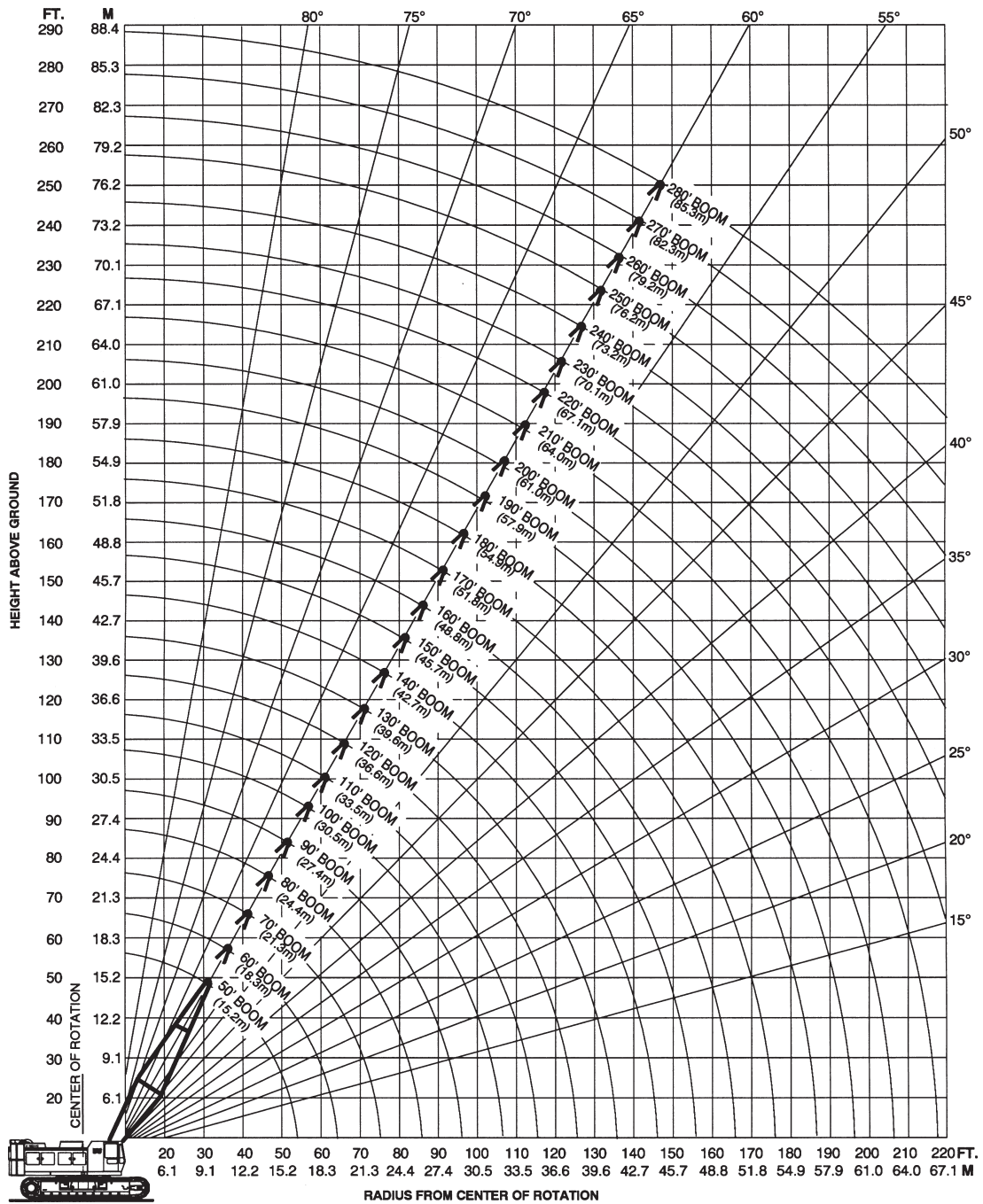
HC 210 WORKHORSE GENERAL DIMENSIONS



	FT	MM		FT	MM		
A.	Width of counterweight	16' 0"	4,267	I ₁ .	Center of drive tumbler to center of rotation	11' 9-1/4"	3,588
A ₁ .	Width over machinery cab	11' 5"	3,480	I ₂ .	Center of idler tumbler to center of rotation	12' 5-5/8"	3,800
A ₂ .	Centerline of machine to outside of operator's cab	6' 0"	1,829	J.	Width of carbody (including vertical jacks)	10' 10"	3,300
A ₃ .	Width of operator's cab	3' 4"	1,016	K.	Overall length of crawlers	28' 2"	8,585
B.	Height over operator's cab	12' 0"	3,658	K ₁ .	Over drive tumbler to center of rotation	13' 7-7/8"	4,162
C.	Tailswing with WorkHorse retracted	19' 8"	5,867	K ₂ .	Over idler tumbler to center of rotation	14' 4-5/16"	4,377
C ₁ .	Tailswing with WorkHorse extended	22' 8"	9,908	M.	Width of tread shoe (standard)	44"	1,118
D.	Center rotation to boom feet	3' 6"	1,066		(optional)	50"	1,270
E.	Ground to center of boom foot	6' 8"	2,032	N.	Overall width of crawlers		
F.	Height over boom hoist	12' 7-9/16"	3,850		44" (1,118 mm) shoes	22' 4"	6,807
F ₁ .	Ground to top lifting	13' 4-1/4"	4,070		50" (1,270 mm) shoes	22' 10"	6,960
G.	Ground to bottom of counterweight	4' 6-3/4"	1,391	N ₁ .	Length of crawlers axles	19' 4-3/4"	5,963
H.	Minimum ground clearance	1' 7-1/2"	495				
I.	Center to center of crawler tumblers	24' 2-15/16"	7,389				

AMERICAN MODEL HC 210 WORKING RANGES

BOOM ANGLE DIAGRAM



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

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