

BOOM COMPOSITION CHART

77SH 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' 77S 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

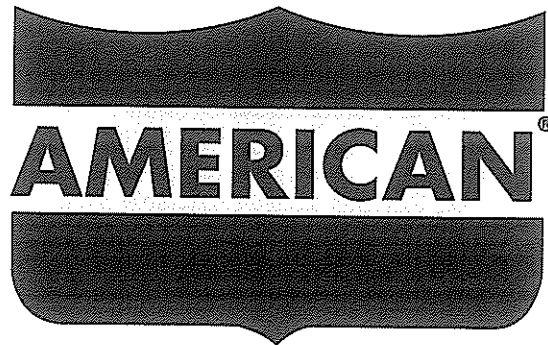
77SH Offset Tip

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' 77S 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

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

77SH Hammerhead Boom

Max. Lifting Capacity (Lbs.)	Minimum Parts of Line	Max. Hoisting Distance - Feet	
		Main (Front)	Aux. (Rear)
420,000	12	110	110
400,000	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

77SH 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

77SH Hammerhead Boom

	Over the End		Over the Side	
	Boom Length (Ft.)	Jib Length (Ft.)	Boom Length (Ft.)	Jib Length (Ft.)
#16HL	240	0	210	40
JIB	230	40	200	50
	220	60	190	70
	210	80	-	-

	Over the End		Over the Side	
	Boom Length (Meters)	Jib Length (Meters)	Boom Length (Meters)	Jib Length (Meters)
#16HL	73.2	0	64.0	12.2
JIB	70.1	12.2	61.0	15.2
	67.1	18.3	57.9	21.3
	64.0	24.4	-	-

77SH Offset Tip

	Over the End		Over the Side	
	Boom Length (Ft.)	Jib Length (Ft.)	Boom Length (Ft.)	Jib Length (Ft.)
#16HL	260	50	240	0
JIB	250	80	230	50
	240	90	220	60
	-	-	210	80

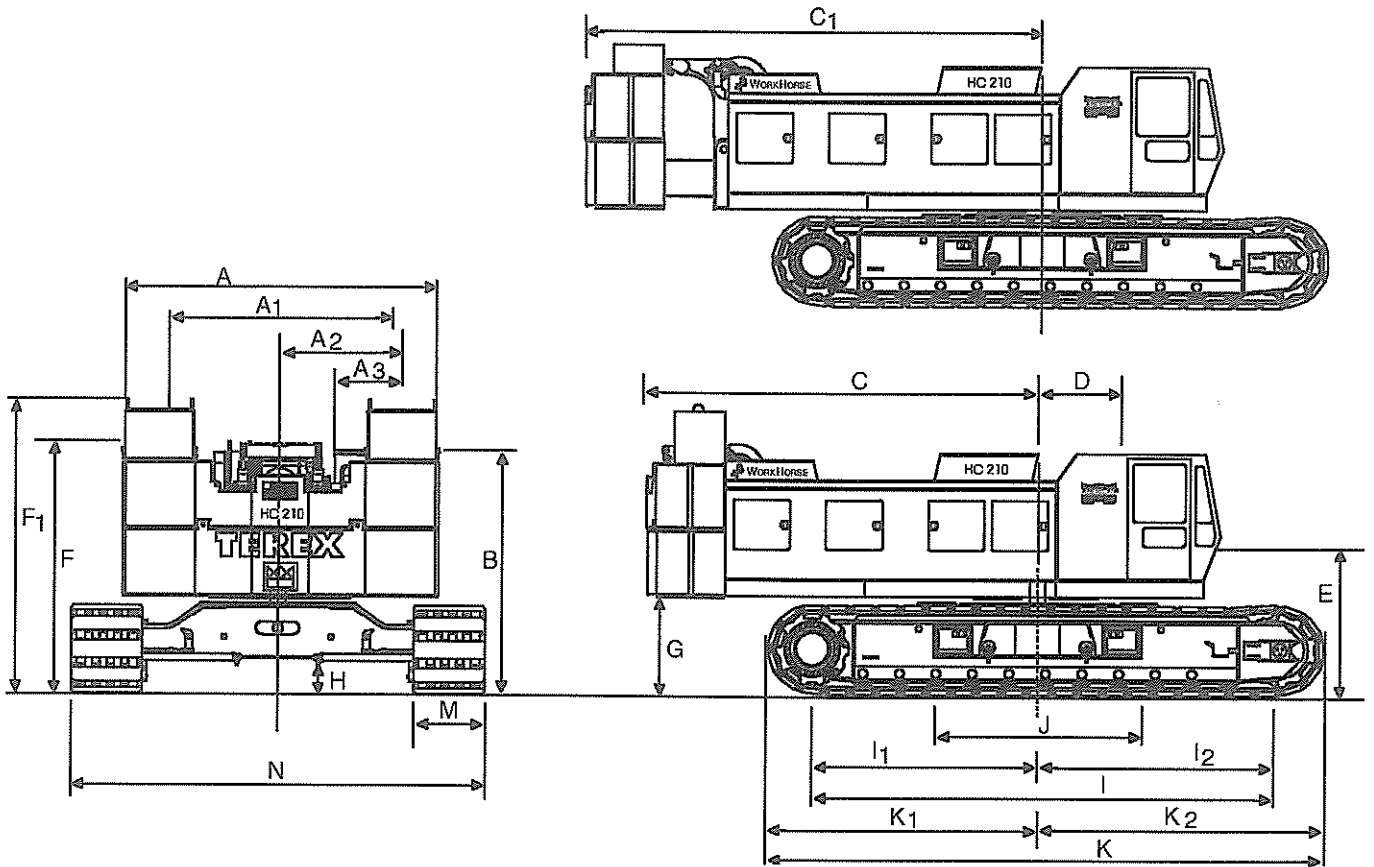
	Over the End		Over the Side	
	Boom Length (Meters)	Jib Length (Meters)	Boom Length (Meters)	Jib Length (Meters)
#16HL	79.2	15.2	73.2	12.2
JIB	76.2	24.4	70.1	15.2
	73.2	27.4	67.1	18.3
	-	-	64.0	24.4

WEIGHTS

	LBS.	KG.
Lifting Crane with standard counterweight, 50' (15.2 mm) boom with hammerhead tip, transport package, 3rd Drum and 44" (965 mm) shoes	315,080	142,958
Main Counterweight – Total	89,000	40,370
Lower with 2-Removal Cylinders	35,000	15,880
Middle Overlay	35,000	15,880
Upper Overlays (2)	19,000	8,618
Crawler side frame counterweight (4)	48,000	21,775
Crane boom outer hammerhead (six sheave)	4,970	2,255

	LBS.	KG.
Crane boom outerbase	2,890	1,085
Crane boom inner, misc. & 3rd drum	8,015	3,636
Crawler Side Frames 44" (1,117 mm) shoes	76,160	34,545
Travel weight includes upper, carbody, transportation package, boom inner, counterweight handling sheaves and third drum	94,060	42,676
Travel weight includes upper, carbody, but NO boom inner, transport package, 3rd drum	84,045	38,132

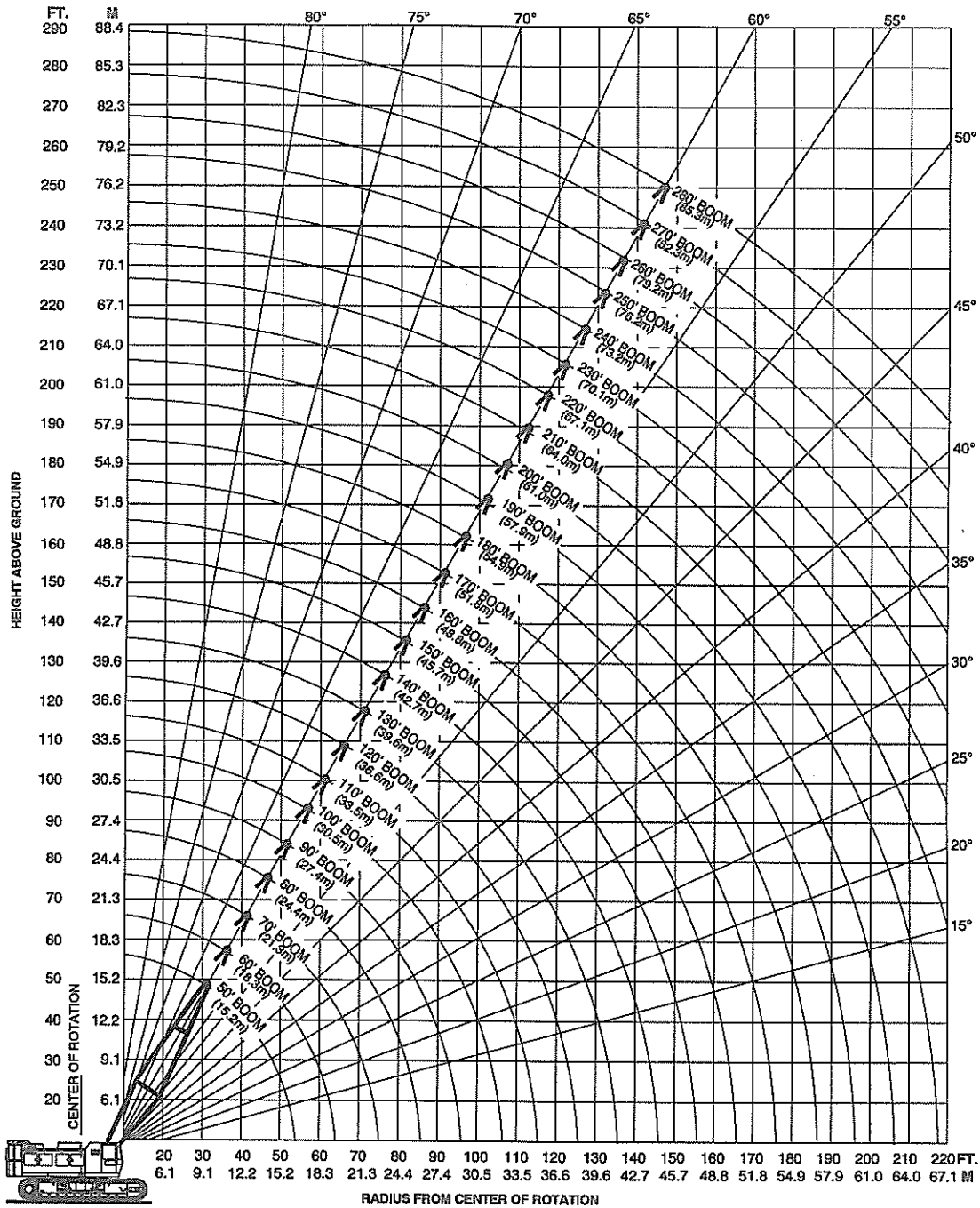
HC 210 WORKHORSE GENERAL DIMENSIONS



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

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.

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