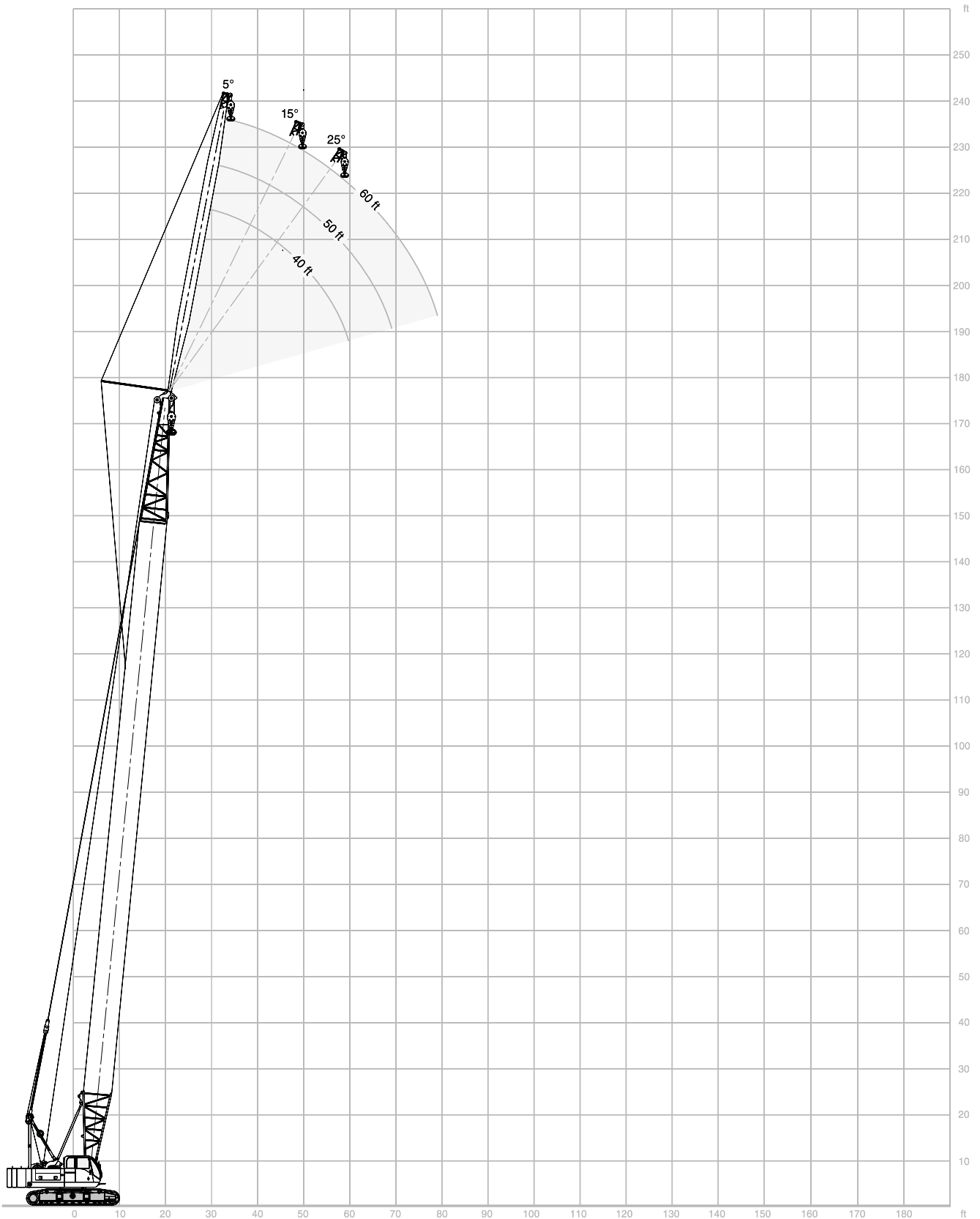




LIFTING CHARTS - Crawler Cranes

TEREX MODEL HC 80 - 80 TON CAPACITY

RANGE DIAGRAM, 47HI BOOM, #9HL JIB



STERLING CRANE

WITH 47HI BOOM, #9HL JIB

58,100 lb

360°

ANSI B 30.5

40' (12.2 m) Jib length

Boom length	Jib Radius (Feet)	5.0 Deg offset		15.0 Deg offset		25.0 Deg offset	
		Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)
	30	80.7	22,550*	-	-	-	-
	35	78.6	22,550*	-	-	-	-
	40	76.5	22,190*	79.2	20,980*	-	-
	50	72.2	21,500*	74.9	20,440*	77.5	19,540*
100' (30.5 m)	60	67.9	19,650	70.5	19,650	73.0	19,100*
	70	63.4	16,060	66.0	16,070	68.4	16,070
	80	58.7	13,460	61.2	13,460	63.6	13,470
	90	53.7	11,490	56.2	11,490	58.4	11,500
	100	48.4	9,950	50.8	9,950	52.9	9,950

	31	80.9	22,530*	-	-	-	-
	35	79.3	22,530*	-	-	-	-
	40	77.4	22,390*	79.9	21,090*	-	-
	50	73.5	21,670*	76.0	20,540*	78.3	19,630*
110' (33.5 m)	60	69.4	19,440	71.9	19,440	74.2	19,190*
	70	65.3	15,860	67.7	15,860	70.0	15,860
	80	61.0	13,270	63.4	13,270	65.6	13,270
	90	56.5	11,290	58.9	11,290	61.0	11,290
	100	51.7	9,740	54.1	9,740	56.1	9,740
	110	46.6	8,490	48.9	8,490	50.8	8,490

	33	80.7	22,520*	-	-	-	-
	35	80.0	22,520*	-	-	-	-
	40	78.2	22,500*	80.6	21,150*	-	-
	50	74.5	21,850*	76.9	20,630*	79.1	19,480*
120' (36.6 m)	60	70.8	19,240	73.1	19,240	75.3	19,240
	70	66.9	15,660	69.2	15,660	71.4	15,670
	80	62.9	13,060	65.2	13,060	67.3	13,060
	90	58.8	11,080	61.1	11,080	63.1	11,080
	100	54.5	9,530	56.7	9,530	58.7	9,530
	110	49.9	8,280	52.1	8,280	53.9	8,280
	120	45.0	7,250	47.1	7,260	48.8	7,260

	34	80.9	22,500*	-	-	-	-
	35	80.6	22,500*	-	-	-	-
	40	78.9	22,500*	-	-	-	-
	50	75.4	22,020*	77.7	20,170*	79.8	16,440*
130' (39.6 m)	60	71.9	19,060	74.1	19,060	76.2	16,240*
	70	68.3	15,480	70.5	15,480	72.5	15,480
	80	64.7	12,870	66.8	12,880	68.8	12,880
	90	60.9	10,900	63.0	10,900	64.9	10,910
	100	56.9	9,350	59.0	9,350	60.8	9,360
	110	52.7	8,100	54.8	8,100	56.6	8,110
	120	48.3	7,070	50.4	7,080	52.0	7,080
	130	43.6	6,220	45.5	6,220	47.1	6,220

Boom length	Jib Radius (Feet)	5.0 Deg offset		15.0 Deg offset		25.0 Deg offset	
		Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)
	36	80.8	20,590*	-	-	-	-
	40	79.5	20,210*	-	-	-	-
	50	76.3	19,260*	78.4	17,060*	80.4	13,890*
	60	73.0	18,250*	75.1	16,430*	77.0	13,600*
140' (42.7 m)	70	69.6	15,280	71.7	15,280	73.6	13,240*
	80	66.2	12,680	68.2	12,680	70.1	12,680
	90	62.6	10,700	64.7	10,700	66.5	10,700
	100	59.0	9,140	61.0	9,150	62.7	9,150
	110	55.1	7,890	57.1	7,900	58.8	7,900
	120	51.1	6,860	53.1	6,870	54.7	6,870
	130	46.9	6,010	48.8	6,010	50.3	6,010
	140	42.3	5,280	44.1	5,280	45.5	5,290

	37	81.0	17,400*	-	-	-	-
	40	80.1	17,190*	-	-	-	-
	50	77.0	16,300*	79.0	14,440*	80.9	11,750*
	60	73.9	15,370*	75.9	13,860*	77.7	11,470*
	70	70.7	14,480*	72.7	13,220*	74.5	11,070*
	80	67.5	12,480	69.4	12,480	71.2	10,580*
150' (45.7 m)	90	64.2	10,500	66.1	10,500	67.8	10,060*
	100	60.8	8,950	62.7	8,950	64.4	8,950
	110	57.2	7,700	59.1	7,700	60.7	7,700
	120	53.5	6,670	55.4	6,670	57.0	6,670
	130	49.7	5,810	51.5	5,810	53.0	5,810
	140	45.5	5,080	47.3	5,080	48.7	5,090
	150	41.1	4,460	42.8	4,460	44.1	4,460

	39	80.9	14,750*	-	-	-	-
	40	80.6	14,670*	-	-	-	-
	50	77.7	13,800*	79.6	12,290*	-	-
	60	74.7	12,930*	76.6	11,740*	78.4	9,670*
	70	71.7	12,130*	73.6	11,100*	75.3	9,260*
	80	68.7	11,330*	70.5	10,480*	72.2	8,800*
160' (48.8 m)	90	65.6	10,310	67.4	9,820*	69.1	8,290*
	100	62.4	8,760	64.2	8,760	65.8	7,810*
	110	59.1	7,510	60.9	7,510	62.4	7,320*
	120	55.6	6,480	57.4	6,480	58.9	6,480
	130	52.1	5,620	53.8	5,620	55.3	5,620
	140	48.3	4,890	50.0	4,890	51.4	4,900
	150	44.3	4,270	46.0	4,270	47.3	4,270
	160	40.0	3,720	41.6	3,720	42.8	3,730

STERLING CRANE

WITH 47HI BOOM, #9HL JIB

58,100 lb

360°

ANSI B 30.5

50' (15.2 m) Jib length

Boom length	Jib Radius (Feet)	5.0 Deg offset		15.0 Deg offset		25.0 Deg offset	
		Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)
	37	80.8	21,570*	-	-	-	-
	40	79.8	21,570*	-	-	-	-
	50	76.5	21,210*	79.2	18,370*	-	-
	60	73.2	19,110	75.9	17,960*	78.3	14,430*
130' (39.6 m)	70	69.9	15,520	72.5	15,520	74.9	14,230*
	80	66.4	12,920	69.0	12,920	71.4	12,920
	90	62.9	10,940	65.5	10,940	67.8	10,940
	100	59.2	9,380	61.8	9,390	64.0	9,390
	110	55.4	8,130	57.9	8,140	60.1	8,140
	120	51.4	7,100	53.8	7,110	55.9	7,110
	130	47.1	6,250	49.5	6,250	51.5	6,250

	38	80.9	19,020*	-	-	-	-
	40	80.3	19,010*	-	-	-	-
	50	77.3	18,100*	79.8	15,590*	-	-
	60	74.2	17,210*	76.6	15,150*	79.0	12,140*
140' (42.7 m)	70	71.0	15,330	73.5	14,540*	75.8	11,930*
	80	67.8	12,720	70.2	12,720	72.5	11,570*
	90	64.4	10,740	66.9	10,740	69.1	10,740
	100	61.0	9,190	63.4	9,190	65.6	9,190
	110	57.5	7,940	59.9	7,940	62.0	7,940
	120	53.8	6,910	56.1	6,910	58.2	6,910
	130	49.9	6,050	52.2	6,050	54.2	6,050
	140	45.8	5,310	48.0	5,310	49.9	5,320

	40	80.8	16,220*	-	-	-	-
	50	77.9	15,410*	80.3	13,300*	-	-
	60	75.0	14,500*	77.3	12,800*	79.6	10,310*
	70	72.0	13,690*	74.3	12,280*	76.5	10,040*
150' (45.7 m)	80	68.9	12,520	71.3	11,690*	73.4	9,660*
	90	65.8	10,530	68.1	10,540	70.2	9,270*
	100	62.6	8,980	64.9	8,980	67.0	8,810*
	110	59.3	7,730	61.6	7,730	63.6	7,730
	120	55.9	6,700	58.1	6,700	60.1	6,700
	130	52.3	5,840	54.5	5,840	56.4	5,850
	140	48.5	5,110	50.7	5,110	52.5	5,120
	150	44.5	4,490	46.7	4,490	48.4	4,490

Boom length	Jib Radius (Feet)	5.0 Deg offset		15.0 Deg offset		25.0 Deg offset	
		Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)
	41	81.0	13,810*	-	-	-	-
	50	78.5	13,090*	80.8	11,330*	-	-
	60	75.7	12,280*	78.0	10,860*	80.1	8,710*
	70	72.9	11,490*	75.1	10,330*	77.2	8,420*
	80	70.0	10,770*	72.2	9,800*	74.3	8,050*
	90	67.0	10,080*	69.2	9,220*	71.3	7,660*
160' (48.8 m)	100	64.0	8,790	66.2	8,680*	68.2	7,240*
	110	60.9	7,540	63.1	7,540	65.0	6,830*
	120	57.7	6,510	59.9	6,510	61.8	6,410*
	130	54.4	5,650	56.5	5,650	58.4	5,660
	140	50.9	4,920	53.0	4,920	54.8	4,930
	150	47.3	4,300	49.3	4,300	51.0	4,300
	160	43.4	3,760	45.4	3,760	47.0	3,770

	43	80.9	11,660*	-	-	-	-
	50	79.0	11,130*	-	-	-	-
	60	76.4	10,340*	78.5	9,190*	80.6	7,380*
	70	73.7	9,620*	75.8	8,650*	77.8	7,040*
	80	70.9	8,940*	73.1	8,150*	75.0	6,670*
	90	68.1	8,300*	70.3	7,600*	72.2	6,290*
170' (51.8 m)	100	65.3	7,710*	67.4	7,120*	69.3	5,870*
	110	62.4	7,120*	64.4	6,600*	66.3	5,480*
	120	59.4	6,310	61.4	6,150*	63.2	5,090*
	130	56.3	5,450	58.3	5,460	60.1	4,690*
	140	53.0	4,720	55.1	4,730	56.8	4,310*
	150	49.7	4,100	51.6	4,100	53.3	3,920*
	160	46.1	3,550	48.1	3,550	49.6	3,540*
	170	42.3	3,070	44.2	3,080	45.7	3,080

STERLING CRANE

WITH 47HI BOOM, #9HL JIB

58,100 lb

360°

ANSI B 30.5

60' (18.3 m) Jib length

Boom length	Jib Radius (Feet)	5.0 Deg offset		15.0 Deg offset		25.0 Deg offset	
		Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)
	42	80.9	15,150*	-	-	-	-
	50	78.7	14,500*	-	-	-	-
	60	75.9	13,720*	78.7	11,780*	-	-
	70	73.1	12,920*	75.8	11,350*	78.3	8,990*
150' (45.7 m)	80	70.2	12,170*	72.9	10,860*	75.4	8,750*
	90	67.3	10,580	69.9	10,340*	72.4	8,460*
	100	64.3	9,010	66.9	9,020	69.3	8,120*
	110	61.2	7,760	63.8	7,760	66.1	7,740*
	120	58.0	6,730	60.6	6,730	62.9	6,740
	130	54.6	5,870	57.2	5,870	59.4	5,880
	140	51.2	5,140	53.7	5,150	55.9	5,150
	150	47.5	4,520	50.0	4,520	52.1	4,520

	44	80.8	12,820*	-	-	-	-
	50	79.3	12,400*	-	-	-	-
	60	76.6	11,610*	79.2	10,040*	-	-
	70	73.9	10,890*	76.5	9,560*	78.9	7,600*
	80	71.1	10,220*	73.7	9,090*	76.1	7,340*
	90	68.4	9,570*	70.9	8,630*	73.3	7,020*
160' (48.8 m)	100	65.5	8,830	68.0	8,130*	70.4	6,680*
	110	62.6	7,580	65.1	7,580	67.4	6,310*
	120	59.6	6,540	62.1	6,550	64.3	5,960*
	130	56.5	5,680	58.9	5,690	61.1	5,600*
	140	53.3	4,950	55.7	4,960	57.8	4,960
	150	49.9	4,330	52.3	4,330	54.3	4,330
	160	46.3	3,790	48.7	3,790	50.6	3,800

Boom length	Jib Radius (Feet)	5.0 Deg offset		15.0 Deg offset		25.0 Deg offset	
		Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)	Boom Angle	Rating (Pounds)
	45	81.0	10,920*	-	-	-	-
	50	79.7	10,520*	-	-	-	-
	60	77.2	9,830*	79.7	8,510*	-	-
	70	74.6	9,130*	77.1	8,060*	79.4	6,380*
	80	72.0	8,500*	74.5	7,580*	76.8	6,110*
	90	69.4	7,880*	71.8	7,140*	74.1	5,780*
170' (51.8 m)	100	66.6	7,300*	69.1	6,660*	71.3	5,440*
	110	63.9	6,780*	66.3	6,210*	68.5	5,090*
	120	61.1	6,270*	63.4	5,780*	65.6	4,740*
	130	58.1	5,490	60.5	5,370*	62.6	4,390*
	140	55.1	4,750	57.5	4,700	59.5	4,060*
	150	52.0	4,130	54.3	4,130	56.3	3,710*
	160	48.7	3,580	51.0	3,580	52.9	3,380*
	170	45.2	3,100	47.5	3,110	49.3	3,040*

STERLING CRANE

NOTES TO LIFTING CAPACITY

⚠ 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 Corporation Service Bulliten #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 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. 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.

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 14 parts of 5/8 inch diameter EIPS wire rope with a minimum breaking strength of 41,200 pounds.

PENDANT SUSPENSION LINE is 2 parts of 1-1/4 inch diameter MONOLAY wire rope with a minimum breaking strength of 172,800 pounds.

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

ERECTION

Erection is with the A-Frame fully raised. Erection „OVER THE END“ is with the boom over the idler end. Erection „OVER THE SIDE“ is with the boom 90° to the sideframes and with the side frames extended. Blocks, slings and other load carrying devices must be on the ground during erection.

47HI BOOM COMPOSITION CHART					
BOOM LENGTH (FEET)	BOOM SECTIONS				
	20' 47HI INNER	10' 47H CENTER	20' 47H CENTER	30' 47H CENTER	20' 47H or 47HI OUTER
40	1	0	0	0	1
50	1	1	0	0	1
60	1	0	1	0	1
70	1	0	0	1	1
80	1	1	0	1	1
90	1	0	1	1	1
100	1	0	0	2	1
110	1	1	0	2	1
120	1	0	1	2	1
130	1	0	0	3	1
140	1	1	0	3	1
150	1	0	1	3	1
160	1	0	0	4	1
170	1	1	0	4	1

MAXIMUM BOOM & JIB SELF-ERECTION DATA		
OVER THE END & OVER THE SIDE		
	BOOM LENGTH (FEET)	JIB LENGTH (FEET)
#9HL JIB	200	0
	170	60

LOAD HOISTING INFORMATION - 7/8" EIPS ROPE			
MAXIMUM LIFTING CAPACITY - LBS.	MINIMUM PARTS OF LINE	MAXIMUM HOISTING DISTANCE - FEET	
		MAIN - (RIGHT)	AUX. - (LEFT)
22,550	1	588	588

#9HL JIB COMPOSITION CHART								
JIB LENGTH (FEET)	20' INNER	10' CENTER	20' CENTER	20' OUTER	EFF. JIB WEIGHT (POUNDS)	JIB OFFSET "A" IN FEET		
						5°	15°	25°
40	1	0	0	1	1,850	4.75'	9.75'	14.66'
50	1	1	0	1	2,350	5.50'	11.66'	17.83'
60	1	0	1	1	2,750	6.08'	13.50'	20.75'

Note: The #9HL jib mounted on a 47HI outer requires the use of a 47HI / #9HL jib adaptor. Refer to the HC 80 Operators Manual for additional information.