

Link-Belt[®]

CONSTRUCTION EQUIPMENT

HTC – 8649XXL

**CRANE RATING MANUAL
4 – SECTION POWER BOOM**

70 Ton

® Link-Belt is a registered trademark.

WINCH PERFORMANCE

Winch Line Pulls			Drum Rope Capacity (Ft.)	
Two Speed Winch				
Wire Rope Layer	Low Speed	High Speed	Layer	Total
	Available Lbs.*	Available Lbs.		
1	16,805	8,290	110	110
2	15,620	7,710	118	228
3	14,590	7,200	126	354
4	13,690	6,760	134	488
5	12,890	6,360	143	631
6	12,190	6,020	151	782

*Maximum lifting capacity: Type RB Rope=12,920 Type ZB Rope=15,600

WIRE ROPE STRENGTH

Maximum Lifting Capacities Based On Wire Rope Strength			
Parts of Line	3/4"	3/4"	Notes
	Type RB	Type ZB	
1	12,920*	15,600	Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in the Crane Rating Manual. Study Operator's Manual for wire rope inspection procedures. *Use of swivel end with 1 part of line is not recommended.
2	25,840	31,200	
3	38,760	46,800	
4	51,680	62,400	
5	64,600	78,000	
6	77,520	93,600	
7	90,440	109,200	
8	103,360	124,800	
9	116,280	140,400	
10	129,200	156,000	

LBCE	DESCRIPTION
TYPE RB	18 X 19 Rotation Resistant – Extra Improved Plow Steel – Preformed Right Lay – Regular Lay, Swaged
TYPE ZB	36 X 7 Rotation Resistant – Extra Improved Plow Steel – Right Lay – Regular Lay

CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

Load Handling Equipment	Weight (Lbs.)
Auxiliary Head Attached	150
70 Ton Hook Block 5 Sheave (See Hook Block For Actual Weight)	1,400
40 Ton Hook Block 4 Sheave (See Hook Block For Actual Weight)	720
8.5 Ton Hook Ball (See Hook Ball For Actual Weight)	360
Lifting From Main Boom With:	
24.5 Ft. Fly Tip Stowed On Boom Base	300
36.5 Ft. Offset Fly Stowed On Boom Base	900
36.5 Ft. Offset Fly Erected But Not Used	6,100
61 Ft. Offset Fly Stowed On Boom Base	1,200
61 Ft. Offset Fly Erected But Not Used	7,600
Lifting From 36.5 Ft. Offset Fly With:	
24.5 Ft. Fly Tip Stowed On Boom Base	300
24.5 Ft. Tip Erected But Not Used	PROHIBITED
24.5 Ft. Tip Stowed On 36.5 Ft. Offset Fly	PROHIBITED
Note: Capacity deductions are for Link-Belt supplied equipment only.	

TIRE INFLATION

Tire Size	Operation	Tire Pressure (PSI)
12 R 22.5	1 mph Stationary	120 120

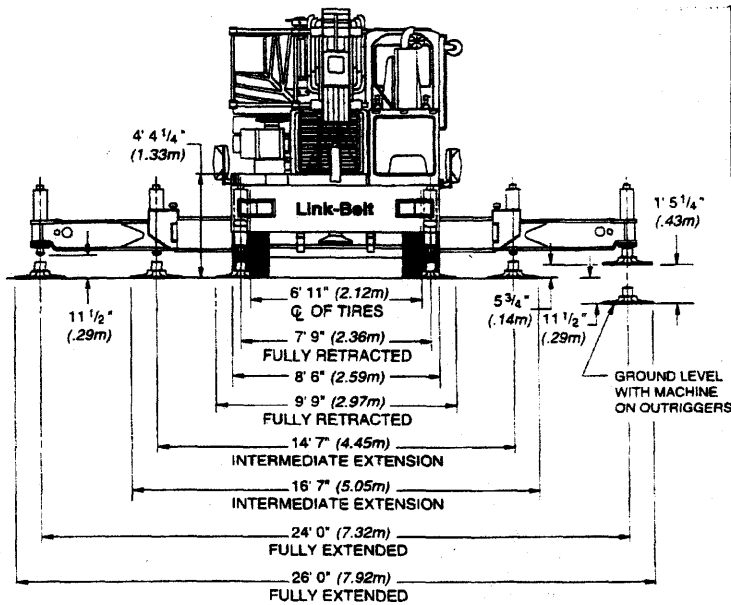
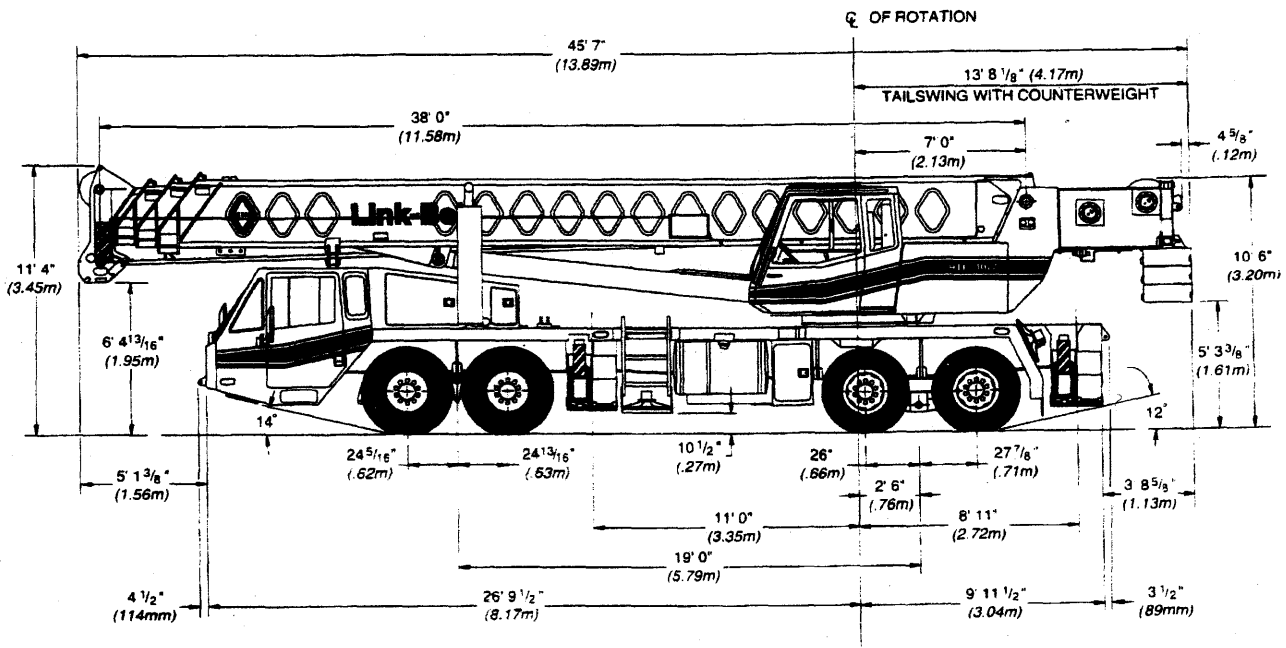
PONTOON LOADINGS

Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure:
97,400 Lbs.	215 PSI

OUTRIGGER SPREAD

Position	Distance
Fully Retracted	93" – (7'-9")
Intermediate Extended	175" – (14'-7")
Fully Extended	288" – (24'-0")

Operator's Manual



General Dimensions	feet	meters
Turning radius (tire to tire)	51' 0"	15.54
Turning radius (curb to curb)	51' 9"	15.77
Turning radius (wall to wall)	55' 6"	16.92
Ground Clearance	10-5/16"	.26
Tailswing	13' 9"	4.19

Dimensions based on crane equipped with standard tires and aluminum pontoons.

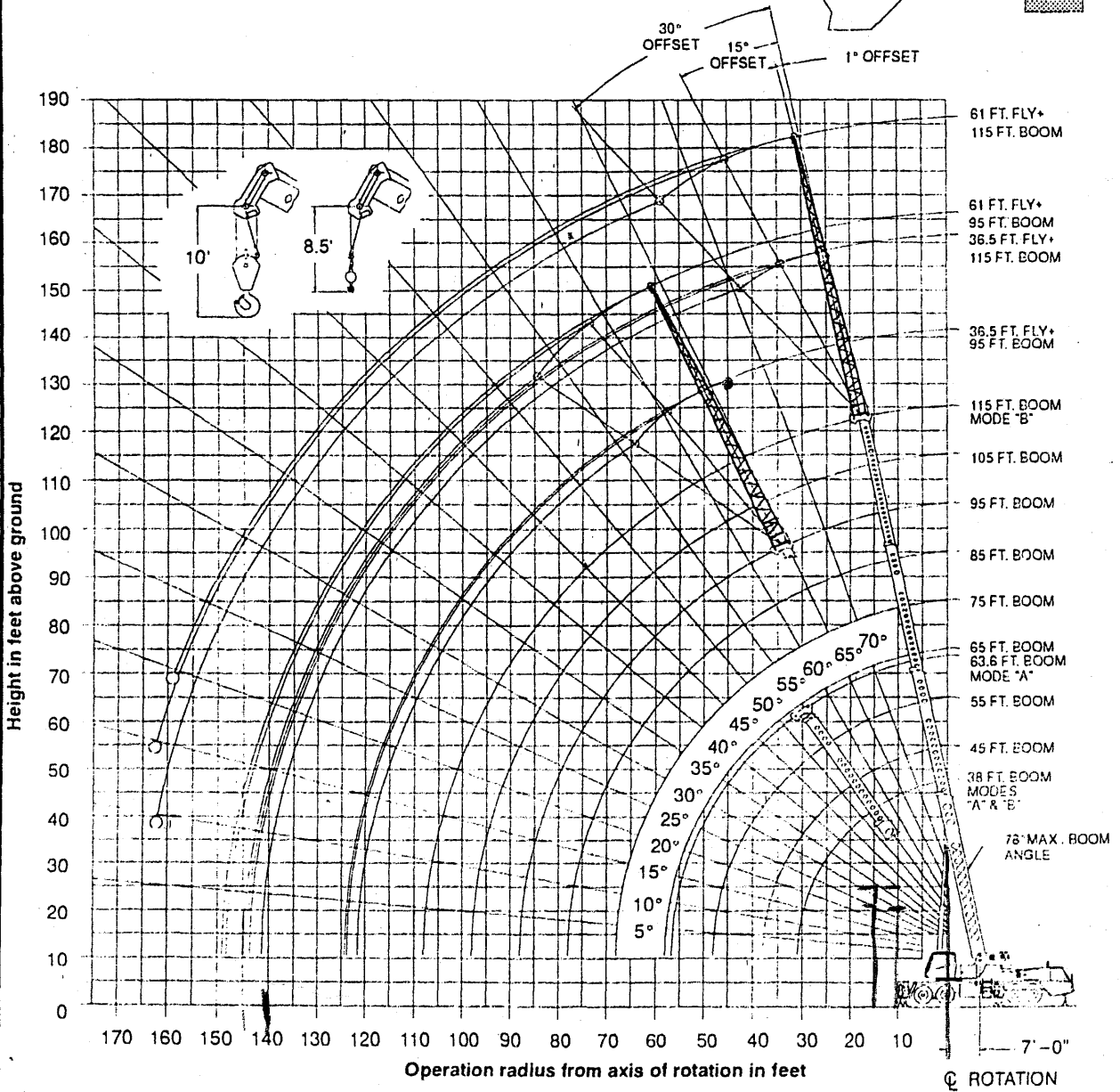
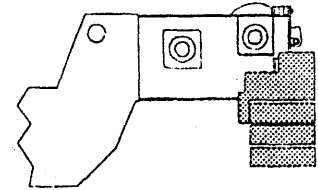
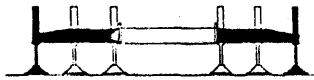
Not To Scale

Figure 5-26
Overall Dimensions

WORKING RANGE DIAGRAM

Working Range Diagram
On Fully Extended Outriggers

16,000# Counterweight



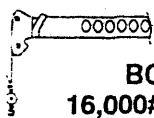
○ Denotes Main Boom + 61' Fly-Boom Mode "B"

Note: Boom and fly geometry shown are for unloaded condition and crane standing level on firm supporting surface. Boom deflection, subsequent radius and boom angle change must be accounted for when applying load to hook.

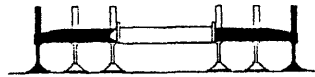


WARNING

Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.



**Maximum Allowable Lifting Capacities
Rated Lifting Capacities In Pounds
On Fully Extended Outriggers
See Set Up Note 2.**

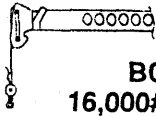


**BOOM MODE "A"
16,000# COUNTERWEIGHT**

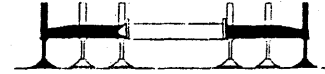
38 Ft. To 45 Ft. Main Boom

Load Radius In Feet	38 Ft.			45 Ft.			Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	
9	69.0	98,000	98,000				9
10	67.0	98,000	98,000	71.0	87,400	87,400	10
12	64.0	98,000	98,000	68.5	87,400	87,400	12
15	58.5	98,000	98,000	64.0	87,400	87,400	15
20	48.5	76,600	76,600	56.5	76,000	76,000	20
25	36.5	59,400	59,400	48.0	58,900	58,900	25
30	17.5	45,600	45,600	38.0	45,100	45,100	30
35				24.5	34,600	34,600	35
Min. Boom Angle/Cap.	0°	26,300	26,300	0°	21,100	21,100	Min. Boom Angle/Cap.

Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.



**Maximum Allowable Lifting Capacities
Rated Lifting Capacities In Pounds
On Fully Extended Outriggers
See Set Up Note 2.**

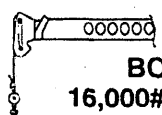


**BOOM MODE "A"
16,000# COUNTERWEIGHT**

55 Ft. To 63.6 Ft. Main Boom

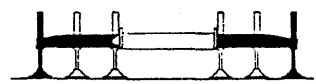
Load Radius In Feet	55 Ft.			63.6 Ft.			Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	
10	75.0	85,600	85,600				10
12	73.0	85,600	85,600	75.5	56,300	56,300	12
15	69.5	85,600	85,600	73.0	56,300	56,300	15
20	64.0	75,300	75,300	68.0	53,000	53,000	20
25	57.5	58,300	58,300	63.0	44,900	44,900	25
30	51.0	44,400	44,400	57.5	38,700	38,700	30
35	43.0	34,100	34,100	51.5	33,700	33,700	35
40	34.5	27,000	27,000	45.5	26,700	26,700	40
45	22.0	21,900	21,900	38.0	21,600	21,600	45
50				29.0	17,800	17,800	50
55				16.0	14,700	14,700	55
Min. Boom Angle/Cap.	0°	14,800	14,800	0°	11,000	11,000	Min. Boom Angle/Cap.

Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.



BOOM MODE "B"
16,000# COUNTERWEIGHT

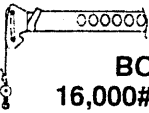
Maximum Allowable Lifting Capacities
Rated Lifting Capacities In Pounds
On Fully Extended Outriggers
See Set Up Note 2.



38 Ft. To 55 Ft. Main Boom										
Load Radius In Feet	38 Ft.			45 Ft.			55 Ft.			Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	
9	69.0	98,000	98,000							9
10	67.0	98,000	98,000	71.0	42,000	42,000	74.5	42,000	42,000	10
12	64.0	98,000	98,000	68.0	42,000	42,000	72.5	42,000	42,000	12
15	58.5	98,000	98,000	64.0	42,000	42,000	69.0	42,000	42,000	15
20	48.5	76,600	76,600	56.5	42,000	42,000	63.5	42,000	42,000	20
25	36.5	59,400	59,400	48.0	42,000	42,000	57.5	42,000	42,000	25
30	17.5	45,600	45,600	38.0	42,000	42,000	50.5	42,000	42,000	30
35				24.5	35,700	35,700	43.0	36,300	36,300	35
40							34.0	29,100	29,100	40
45 ¹							22.0	23,900	23,900	45
Min. Boom Angle/ Cap.	0°	26,300	26,300	0°	20,100	20,100	0°	14,400	14,400	Min. Boom Angle/ Cap.

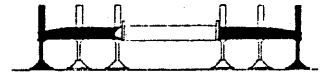
65 Ft. To 85 Ft. Main Boom										
Load Radius In Feet	65 Ft.			75 Ft.			85 Ft.			Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	
12	75.5	42,000	42,000							12
15	73.0	42,000	42,000	75.5	42,000	42,000	77.5	42,000	42,000	15
20	68.0	42,000	42,000	71.5	42,000	42,000	74.5	42,000	42,000	20
25	63.5	42,000	42,000	68.0	42,000	42,000	71.0	41,800	41,800	25
30	58.0	42,000	42,000	63.5	42,000	42,000	67.0	36,900	36,900	30
35	52.5	36,600	36,600	59.0	36,800	36,800	63.5	32,900	32,900	35
40	46.5	29,400	29,400	54.0	29,600	29,600	59.5	29,700	29,700	40
45	39.5	24,300	24,300	49.0	24,500	24,500	55.0	24,600	24,600	45
50	31.5	20,300	20,300	43.0	20,600	20,600	50.5	20,700	20,700	50
55	20.0	17,200	17,200	37.0	17,500	17,500	46.0	17,600	17,600	55
60				29.5	15,000	15,000	40.5	15,100	15,100	60
65				19.0	12,900	12,900	34.5	13,100	13,100	65
70							27.5	11,400	11,400	70
75							18.0	10,000	10,000	75
Min. Boom Angle/ Cap.	0°	10,700	10,700	0°	8,100	8,100	0°	6,100	6,100	Min. Boom Angle/ Cap.

Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.



BOOM MODE "B"
16,000# COUNTERWEIGHT

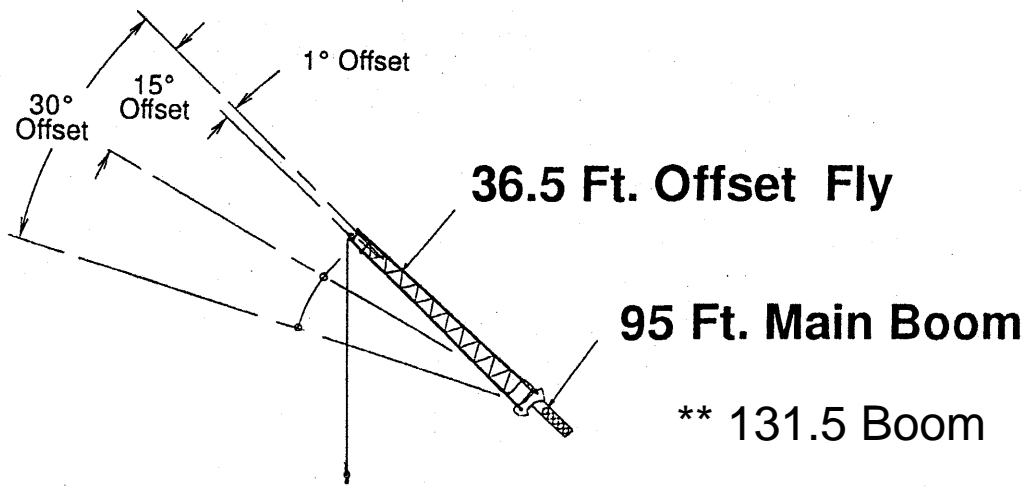
Maximum Allowable Lifting Capacities
Rated Lifting Capacities In Pounds
On Fully Extended Outriggers
See Set Up Note 2.

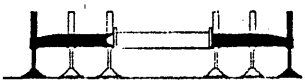


95 Ft. To 115 Ft. Main Boom

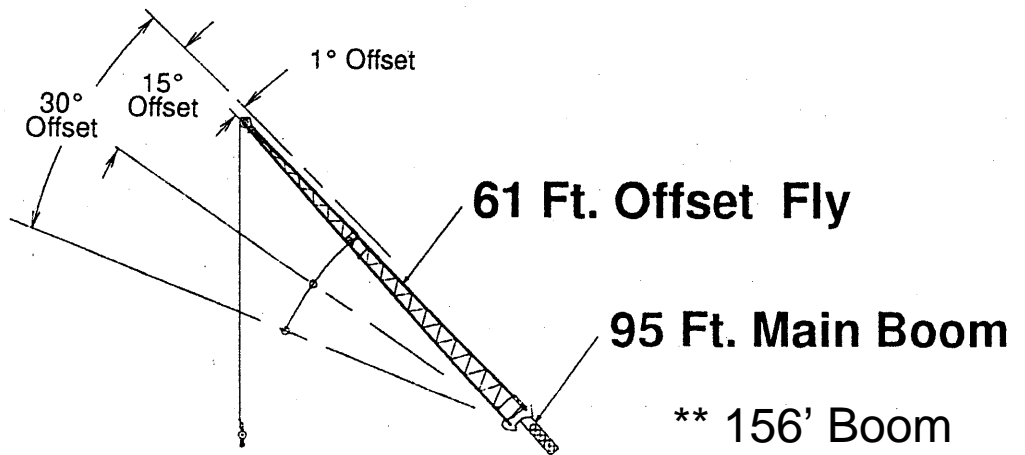
Load Radius In Feet	95 Ft.			105 Ft.			115 Ft.			Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	Loaded Boom Angle (Deg.)	360°	Over Rear	
20	76.5	38,600	38,600							20
25	73.5	33,800	33,800	75.5	30,300	30,300	77.0	24,500	24,500	25
30	70.0	29,800	29,800	72.5	27,000	27,000	74.5	24,500	24,500	30
35	67.0	26,600	26,600	69.5	24,100	24,100	72.0	22,200	22,200	35
40	63.5	23,900	23,900	66.5	21,700	21,700	69.5	20,000	20,000	40
45	60.0	21,700	21,700	63.5	19,600	19,600	66.5	18,100	18,100	45
50	56.0	19,800	19,800	60.5	17,900	17,900	63.5	16,300	16,300	50
55	52.5	17,700	17,700	57.0	16,200	16,200	61.0	14,900	14,900	55
60	48.0	15,200	15,200	53.5	14,900	14,900	58.0	13,600	13,600	60
65	43.5	13,200	13,200	50.0	13,300	13,300	54.5	12,500	12,500	65
70	38.5	11,600	11,600	46.0	11,600	11,600	51.5	11,600	11,600	70
75	33.0	10,100	10,100	41.5	10,200	10,200	48.0	10,300	10,300	75
80	26.5	8,800	8,900	37.0	8,900	8,900	44.0	9,000	9,000	80
85	17.0	7,700	7,800	31.5	7,800	7,900	40.0	7,800	7,900	85
90				25.5	6,800	6,900	35.5	6,900	7,000	90
95				16.5	5,900	6,100	30.5	6,000	6,100	95
100							24.5	5,200	5,400	100
105							16.0	4,600	4,700	105
Min. Boom Angle/ Cap.	0°	4,700	4,700	0°	3,500	3,500	0°	2,500	2,500	Min. Boom Angle/ Cap.

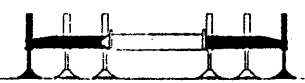
Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.



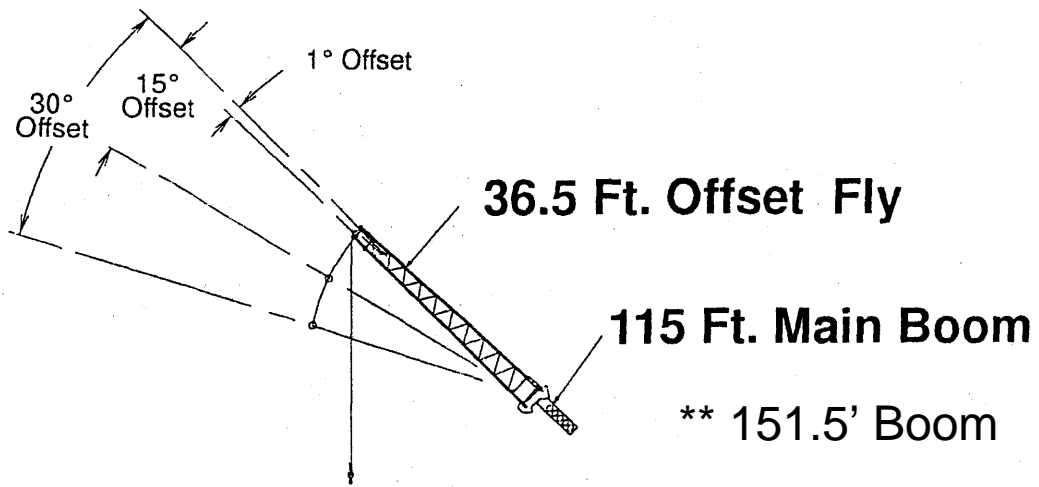
BOOM MODE "B"		Maximum Allowable Lifting Capacities						
16,000# COUNTERWEIGHT		Rated Lifting Capacities In Pounds					On Fully Extended Outriggers	
		See Set Up Note 2.						
95 Ft. Main Boom + 36.5 Ft. Offset Fly								
Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet	
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
30	76.5	16,900					30	
35	74.0	15,700	77.5	11,900			35	
40	72.0	14,600	75.5	11,300			40	
45	70.0	13,700	73.5	10,700	77.0	8,700	45	
50	67.5	12,800	71.0	10,300	74.5	8,300	50	
55	65.0	12,100	68.5	9,800	72.0	8,000	55	
60	62.5	11,400	66.0	9,400	69.5	7,700	60	
65	60.0	10,800	63.5	8,900	67.0	7,400	65	
70	57.5	10,300	61.0	8,500	64.5	7,200	70	
75	55.0	9,800	58.5	8,100	61.5	6,900	75	
80	52.0	9,300	55.5	7,800	58.5	6,700	80	
85	49.0	8,800	52.5	7,400	55.5	6,600	85	
90	46.0	8,100	49.5	7,200	52.5	6,400	90	
95	42.5	7,200	46.0	6,900	49.0	6,300	95	
100	39.0	6,500	42.5	6,700	45.0	6,000	100	
105	35.0	5,800	38.5	6,000	41.0	6,000	105	
110	30.5	5,100	34.0	5,400	36.0	5,500	110	
115	25.0	4,600	28.5	4,800	30.0	4,800	115	
120	18.5	4,100	21.5	4,200			120	
Min. Boom Angle/Cap.	0°	1,700	0°	1,700	0°	1,800	Min. Boom Angle/Cap.	

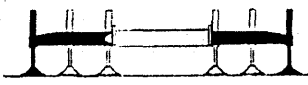
Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.



BOOM MODE "B" 16,000# COUNTERWEIGHT		Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
95 Ft. Main Boom + 61 Ft. Offset Fly								
Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet	
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
35	77.5	9,500					35	
40	75.5	9,500					40	
45	74.0	9,000					45	
50	72.0	8,400	77.0	6,200			50	
55	70.0	7,800	75.5	5,900			55	
60	68.0	7,300	73.5	5,600			60	
65	66.0	6,800	71.5	5,300	76.5	4,300	65	
70	64.0	6,300	69.5	5,000	74.5	4,100	70	
75	62.0	6,000	67.0	4,800	72.0	4,000	75	
80	60.0	5,600	65.0	4,600	70.0	3,800	80	
85	58.0	5,300	63.0	4,400	68.0	3,700	85	
90	55.5	5,000	60.5	4,200	65.5	3,600	90	
95	53.5	4,800	58.5	4,000	63.0	3,500	95	
100	51.0	4,500	56.0	3,900	60.5	3,400	100	
105	48.5	4,300	53.5	3,700	58.0	3,300	105	
110	45.5	4,100	50.5	3,600	55.0	3,200	110	
115	43.0	3,900	48.0	3,500	52.0	3,100	115	
120	40.0	3,700	45.0	3,300	49.0	3,100	120	
125	36.5	3,600	41.5	3,200	45.5	3,000	125	
130	33.0	3,400	38.0	3,200	41.5	3,000	130	
135	29.0	3,300	34.0	3,100	37.0	3,000	135	
140	24.5	3,000	29.0	3,000	31.0	3,000	140	
145	18.0	2,700	22.0	2,800			145	
Min. Boom Angle/Cap.	0°	700	0°	700	0°	800	Min. Boom Angle/Cap.	

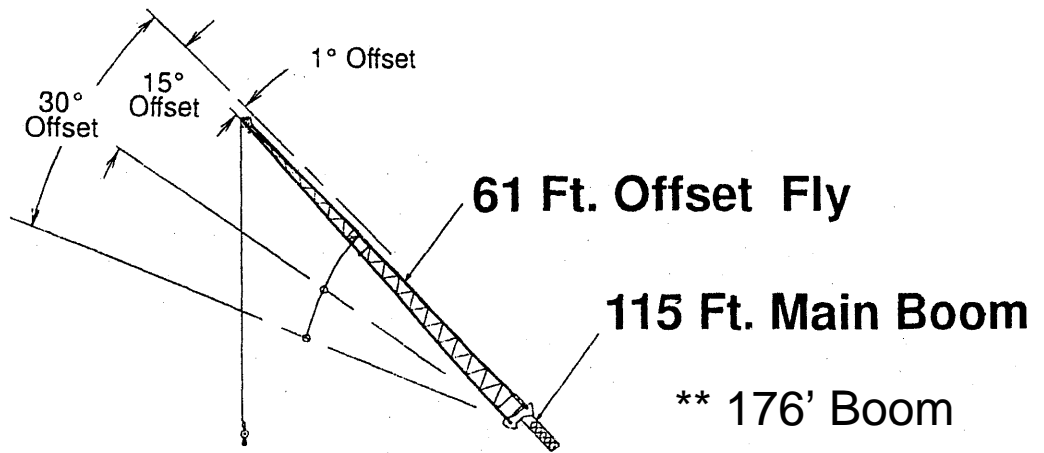
Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.



BOOM MODE "B" 16,000# COUNTERWEIGHT		Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
115 Ft. Main Boom + 36.5 Ft. Offset Fly								
Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet	
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
35	76.5	10,500					35	
40	75.0	10,500					40	
45	73.0	10,500	76.5	10,100			45	
50	71.5	10,500	75.0	10,100	78.0*	8,700	50	
55	69.5	10,500	73.0	10,100	76.0	8,400	55	
60	67.5	10,500	71.0	10,100	74.0	8,100	60	
65	66.0	10,300	69.0	9,700	71.5	7,800	65	
70	63.5	9,500	67.0	9,300	69.5	7,600	70	
75	61.5	8,700	65.0	8,900	67.5	7,400	75	
80	59.0	8,100	62.5	8,200	65.0	7,100	80	
85	57.0	7,400	60.0	7,600	63.0	7,000	85	
90	54.5	6,900	57.5	7,000	60.5	6,800	90	
95	52.0	6,400	55.0	6,500	58.0	6,600	95	
100	49.0	5,900	52.5	6,000	55.5	6,100	100	
105	46.5	5,500	49.5	5,600	52.5	5,700	105	
110	43.5	4,900	47.0	5,200	49.5	5,200	110	
115	40.5	4,300	43.5	4,600	46.0	4,800	115	
120	37.0	3,800	40.0	4,100	42.5	4,200	120	
125	33.0	3,300	36.5	3,600	38.5	3,700	125	
130	29.0	2,900	32.0	3,100	33.5	3,200	130	
135	24.0	2,500	27.0	2,700	28.0	2,700	135	
140	17.5	2,200	20.5	2,300			140	
Min. Boom Angle/Cap.	0°	400	0°	500	0°	500	Min. Boom Angle/Cap.	

Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.

* This capacity based on maximum obtainable boom angle.



BOOM MODE "B" 16,000# COUNTERWEIGHT		Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.						
115 Ft. Main Boom + 61 Ft. Offset Fly								
Load Radius In Feet	1° Offset		15° Offset		30° Offset		Load Radius In Feet	
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°		
40	77.5	7,100					40	
45	76.0	7,100					45	
50	74.5	7,100					50	
55	73.0	7,100					55	
60	71.5	7,100	76.5	6,000			60	
65	70.0	7,100	75.0	5,700			65	
70	68.5	7,100	73.0	5,400	77.5	4,300	70	
75	67.0	6,700	71.5	5,200	76.0	4,200	75	
80	65.5	6,300	69.5	4,900	74.0	4,000	80	
85	63.5	6,000	68.0	4,700	72.0	3,900	85	
90	62.0	5,700	66.0	4,500	70.5	3,800	90	
95	60.0	5,400	64.0	4,400	68.5	3,700	95	
100	58.0	5,100	62.5	4,200	66.5	3,600	100	
105	56.0	4,800	60.5	4,100	64.5	3,500	105	
110	53.5	4,400	58.0	3,900	62.0	3,400	110	
115	51.5	4,100	56.0	3,800	60.0	3,300	115	
120	49.0	3,700	54.0	3,700	57.5	3,200	120	
125	46.5	3,400	51.5	3,500	55.5	3,200	125	
130	44.0	3,100	49.0	3,200	52.5	3,100	130	
135	41.5	2,900	46.0	2,900	50.0	3,000	135	
140	38.5	2,600	43.0	2,700	46.5	2,700	140	
145	35.5	2,300	40.0	2,400	43.0	2,400	145	
150	32.0	2,000	36.5	2,200	39.5	2,100	150	
155	28.0	1,700	32.5	1,900	34.5	1,800	155	
160	23.5	1,400	28.0	1,600	28.5	1,600	160	

⚠ WARNING

Do Not Lower 61 Ft. Offset Fly In Working Position Below 20 Degrees Unless Main Boom Length Is 108 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

Note: Refer To Page 8 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.