

# Link-Belt®

## CONSTRUCTION EQUIPMENT



# ATC - 822

## CRANE RATING MANUAL

3-SECTION POWER BOOM

17.50 R25-2 ★ TIRES

3,000# COUNTERWEIGHT

SERIAL NUMBER

For Replacement, Order Part Number: 71P0068

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## WARNING

**READ AND UNDERSTAND THE OPERATOR'S AND SAFETY MANUAL AND THE FOLLOWING INSTRUCTIONS AND CHART VALUES BEFORE OPERATING THE CRANE. OPERATION WHICH DOES NOT FOLLOW THESE INSTRUCTIONS MAY RESULT IN AN ACCIDENT.**

### OPERATING INSTRUCTIONS

#### GENERAL:

1. Rated lifting capacities in pounds as shown on lift charts pertain to this crane as originally manufactured and normally equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator's, Parts and Safety Manuals supplied with this crane. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall read and fully understand the latest applicable American National Standards Institute (ANSI) safety standards for cranes.
4. The maximum allowable lifting capacities are based on crane standing level on firm supporting surface.

#### SET UP:

1. The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger pontoons or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, all tires must be free of supporting surface. All outrigger beams must be extended to the same length; fully retracted, intermediate extended, or fully extended.
3. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation Note 19.)
4. Do not exceed 70° boom angle while on tires since loss of backward stability will occur causing a tipping condition.
5. For required parts of line, see Wire Rope Strength and Winch Performance.

#### OPERATION:

1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip the crane to determine allowable loads. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacities. For clamshell bucket operation, weight of bucket and bucket contents is restricted to a maximum weight of 5,000 pounds or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum weight of 5,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 50 feet and the boom angle is restricted to a minimum of 35 degrees. Lifts with any fly erected are prohibited for both clam and magnet operation.
2. The crane capacities shown on fully extended outriggers or intermediate extended outriggers do not exceed 85% of the tipping loads. The crane capacities shown on fully retracted outriggers or tires do not exceed 75% of the tipping loads as determined by SAE crane stability test code J-765A.
3. The crane capacities in the shaded areas above the bold lines, are based on structural strength or hydraulic limitations. The crane capacities below the bold lines are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
4. Rated lifting capacities include the weight of the hook block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated capacity to obtain the net load which can be lifted. Also, see Capacity Deductions For Auxiliary Load Handling Equipment.
5. Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
6. Rated lifting capacities are for lift crane service only.
7. Do not operate at any radii or boom lengths (minimum or maximum) where capacities are not listed. At these positions, the crane can tip or cause boom failure.

8. The maximum loads which can be telescoped are not definable because of variation in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the applicable load rating chart.
9. For main boom capacities when either boom length or radius or both are between values listed, proceed as follows:
  - a. For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
  - b. For load radii not listed, use rating for next larger radius.
10. The user shall operate at reduced ratings to allow for adverse job conditions, such as: soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electrical wires, etc. Side load on boom or fly is extremely dangerous.
11. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 feet.
12. Power sections of boom must be extended equally.
13. The least stable working area on fully extended outriggers is over the rear. The least stable working area on intermediate outriggers, fully retracted outriggers, or tires is over the side.
14. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see wire rope strength) is considered excessive and must be accounted for when making lifts. Use working range diagram to estimate the extra feet of rope then deduct 1 lb. for each extra foot of wire rope before attempting to lift a load.
15. The loaded boom angle combined with the boom length give only an approximation of the operating radius. The boom angle, before loading, should be greater to account for deflection. For main boom capacities, the loaded boom angle is for reference only. For fly capacities, the load radius is for reference only.
16. For fly capacities with main boom length less than 70 ft. the rated loads are determined by the boom angle only in the fly capacity columns. For angles not shown use the next lower boom angle to determine the allowable capacity.
17. When working on retracted outriggers, lifts with any fly erected are prohibited.
18. The 27 ft. boom length capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 40 ft. boom length.
19. Crane capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire picks require lifting from main boom head only on a smooth and level surface. Pick and carry operations are restricted to a maximum speed of 2.5 MPH. The boom must be centered over the rear with swing lock engaged and the load must be restrained from swinging. Lifts with any fly erected on tires are prohibited. Tire inflation pressure for stationary and 2.5 MPH operation is 102 PSI.

**DEFINITIONS:**

1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and horizontal after lifting the load at the rated radius.
3. Working Area: Area measured in a circular arc about the center line of rotation as shown on the working area diagram.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.

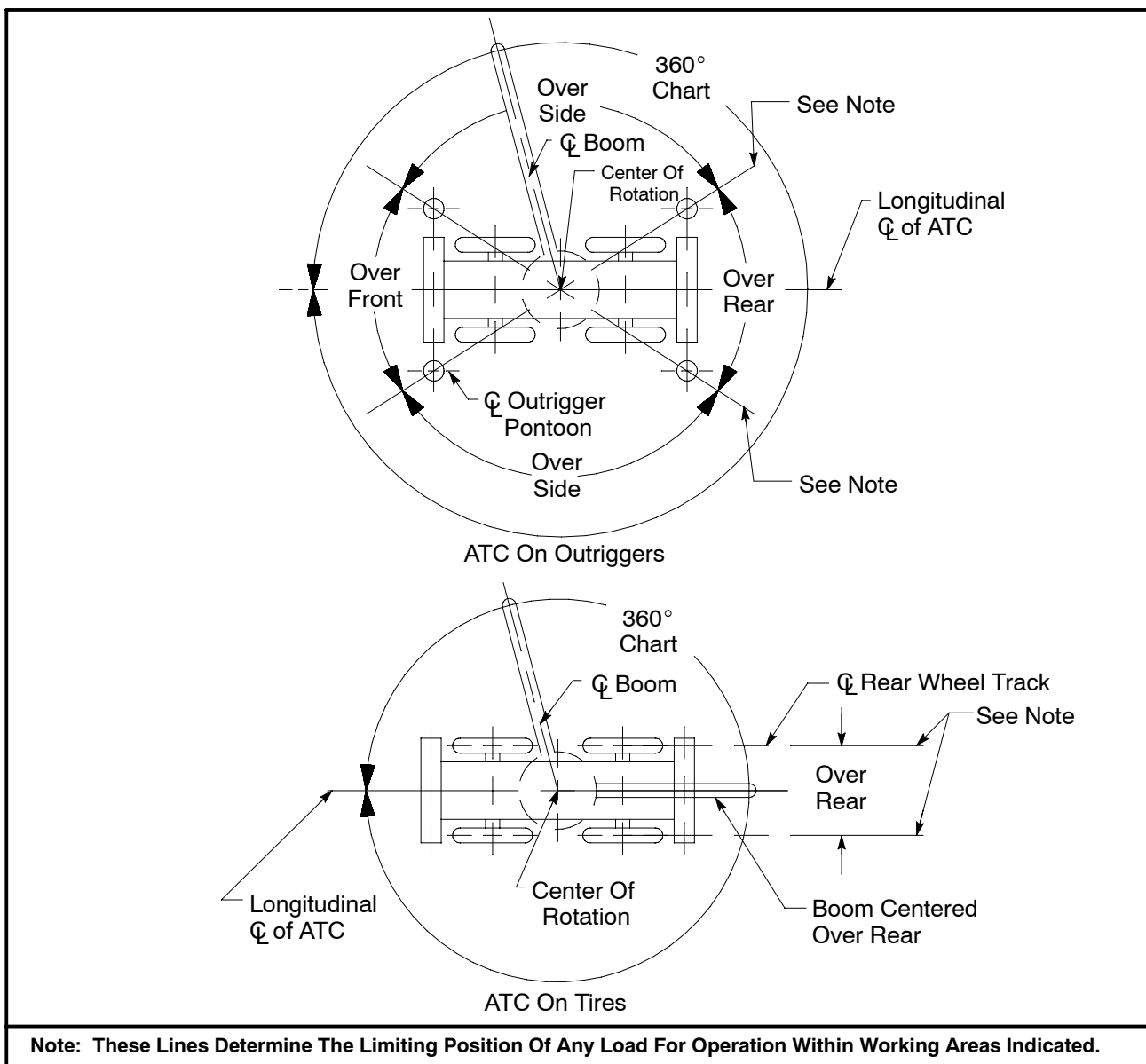
## WINCH PERFORMANCE

Winch Line Pulls			
Single Speed Winch		Drum Rope Capacity (Ft.)	
Wire Rope Layer	Available Lbs.	Layer	Total
1	8592	62	62
2	7733	69	131
3	7030	76	207
4	6444	82	289
5	5948	89	378

## WIRE ROPE STRENGTH

Maximum Lifting Capacities Based On Wire Rope Strength		
Parts of Line	5/8"	Notes
	Type RB	
1*	9,080	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	18,160	
3	27,240	
4	36,320	
5	45,400	
6	54,480	
7	63,560	
8	72,640	
LBCE	DESCRIPTION	
TYPE RB	18 X 19 Rotation Resistant - Extra Improved Plow Steel - Preformed Right Lay - Regular Lay, Swaged	

# WORKING AREAS



**Note:** These Lines Determine The Limiting Position Of Any Load For Operation Within Working Areas Indicated.

## HYDRAULIC CIRCUIT PRESSURE SETTINGS

Function	Pressure (PSI)
Front And Rear Winch	3,500
Outriggers	2,600
Boom Hoist	3,500
Telescope	3,500
Swing	1,350
Steering - Front	2,000
Steering - Rear	2,500
Hydraulic Controllers	500

## CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

Load Handling Equipment:	Weight (Lbs.)
Auxiliary Head Attached	100
5 Ton Hook Ball (See Hook Ball For Actual Weight)	172
8.5 Ton Hook Ball (See Hook Ball For Actual Weight)	354
25 Ton Hook Block (See Hook Block For Actual Weight)	429
25 Ton Hook Block W/Cheek Weight Kit (See Hook Block For Actual Weight)	653

Lifting From Main Boom With:	Weight (Lbs.)
25 Ft. Fixed Fly Stowed On Boom Base	200
25 Ft. Fixed Fly Erected But Not Used	1,600
25 Ft. Offset Fly Stowed On Boom Base	400
25 Ft. Offset Fly Erected But Not Used	2,900
25-43 Ft. Offset Fly Stowed On Base	600
25-43 Ft. Offset Fly Erected But Not Used (Retracted)	3,300
25-43 Ft. Offset Fly Erected But Not Used (Extended)	4,100

## PONTOON LOADINGS

Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure:
40,000 Lbs.	200 PSI

## OUTRIGGER SPREAD

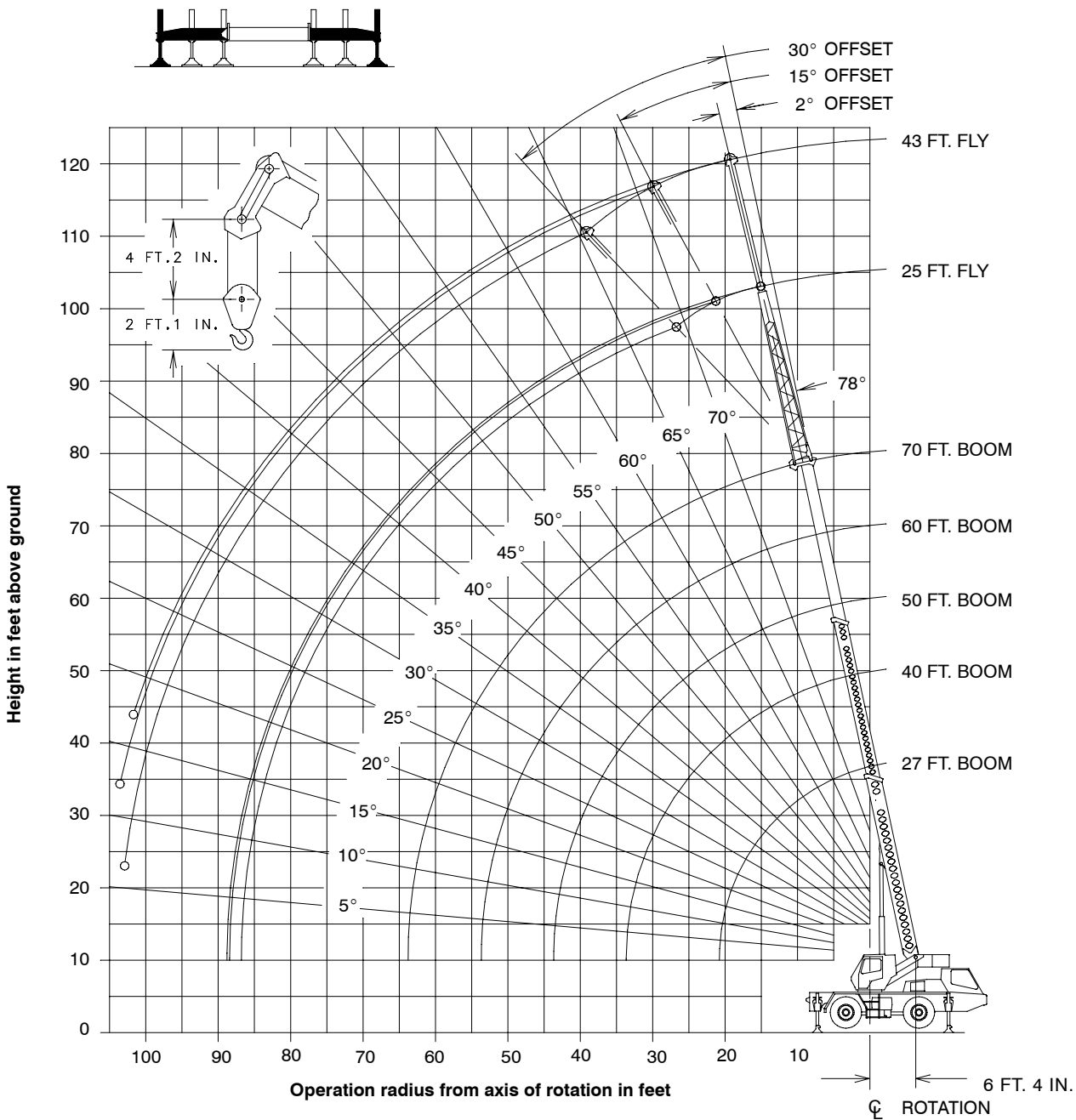
Position	Distance
Fully Retracted	88.75" - (7' - 4 <sup>3</sup> / <sub>4</sub> " )
Intermediate Extended	155.75" - (12' - 11 <sup>3</sup> / <sub>4</sub> " )
Fully Extended	222.75" - (18' - 6 <sup>3</sup> / <sub>4</sub> " )

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# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Fully Extended Outriggers**



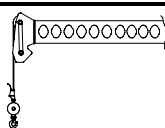
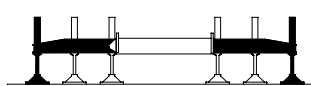
○ Denotes 43 Ft. Offset Telescoping Fly

**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.**



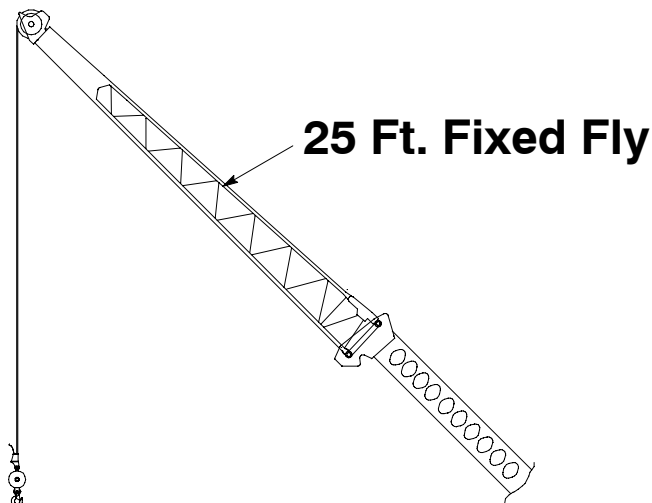
## WARNING

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

 <b>Maximum Allowable Lifting Capacities</b> <b>Rated Lifting Capacities In Pounds</b> <b>On Fully Extended Outriggers</b> <b>See Set Up Note 2.</b> 							
27 Ft. To 50 Ft. Main Boom							
Load Radius In Feet	27 Ft.		40 Ft.		50 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
9	60.5	44,000	71.5	41,400	75.5	39,100	9
10	58.0	40,800	69.5	39,200	74.5	37,100	10
12	52.5	33,900	66.5	33,900	72.0	33,700	12
15	43.5	26,600	61.5	26,600	68.0	26,600	15
20	19.5	19,000	52.5	19,000	61.5	19,000	20
25	See Operation Note 18.		42.0	14,900	54.5	14,900	25
30			28.5	11,700	47.0	11,700	30
35					37.5	9,500	35
40					25.5	7,500	40
Min. Boom Angle/Cap.	0°	18,100	0°	9,900	0°	6,400	Min. Boom Angle/Cap.

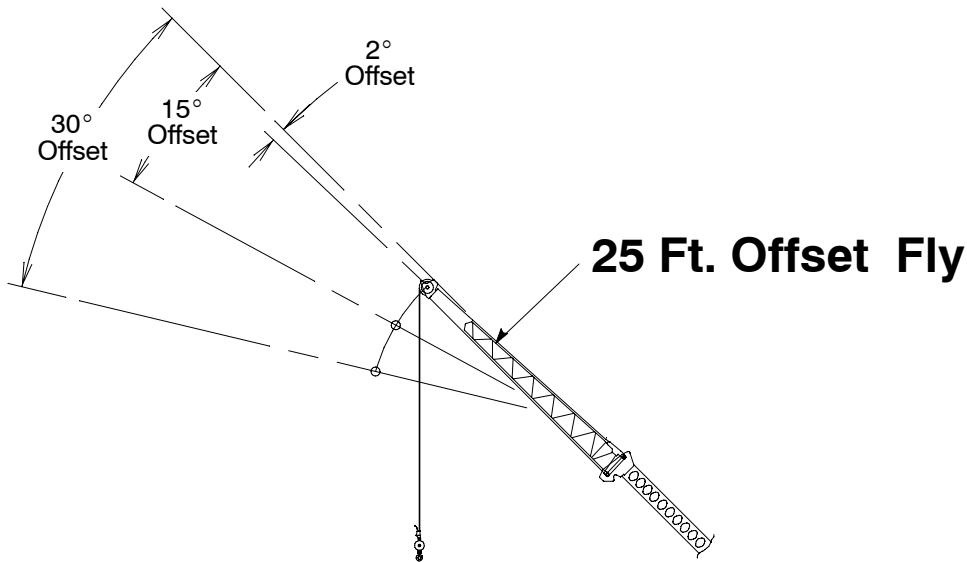
60 Ft. To 70 Ft. Main Boom					
Load Radius In Feet	60 Ft.		70 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
12	76.0	30,500			12
15	72.5	26,600	76.0	22,000	15
20	67.5	19,000	71.5	17,700	20
25	62.0	14,900	67.0	14,500	25
30	56.0	11,700	62.0	11,700	30
35	49.5	9,600	57.5	9,700	35
40	42.5	7,600	52.0	7,700	40
45	34.5	6,200	46.0	6,200	45
50	23.5	5,000	39.5	5,100	50
55			32.0	4,200	55
60			22.0	3,500	60
Min. Boom Angle/Cap.	0°	4,400	0°	3,100	Min. Boom Angle/Cap.

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**



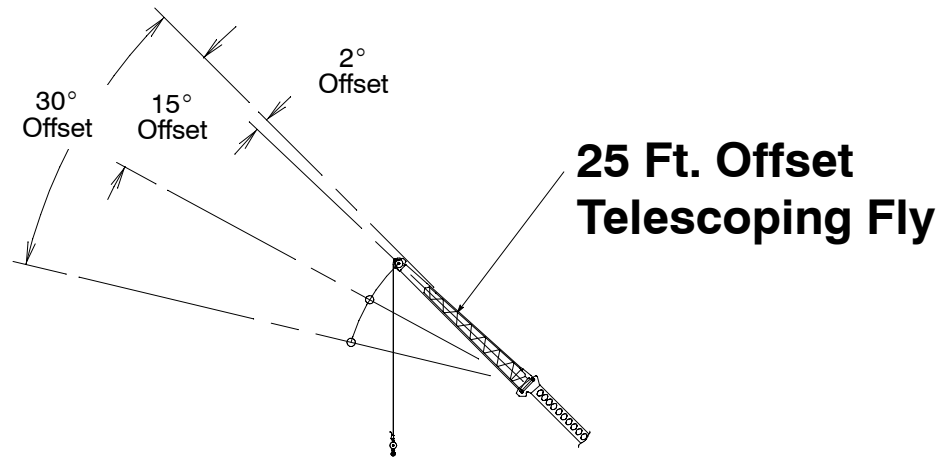
<b>Maximum Allowable Lifting Capacities</b> <b>Rated Lifting Capacities In Pounds</b> <b>On Fully Extended Outriggers</b> <b>See Set Up Note 2.</b>			
70 Ft. Main Boom + 25 Ft. Fixed Fly			
Load Radius In Feet	Loaded Boom Angle (Deg.)	360°	Load Radius In Feet
20	77.0	11,800	20
25	74.0	10,800	25
30	70.5	9,800	30
35	67.5	9,000	35
40	64.0	8,000	40
45	60.5	6,700	45
50	56.5	5,700	50
55	52.5	4,800	55
60	48.5	4,100	60
65	44.0	3,500	65
70	39.0	3,000	70
75	33.5	2,500	75
80	27.0	2,200	80
85	18.5	1,900	85
Min. Boom Angle/Cap.	0°	1,700	Min. Boom Angle/Cap.

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**



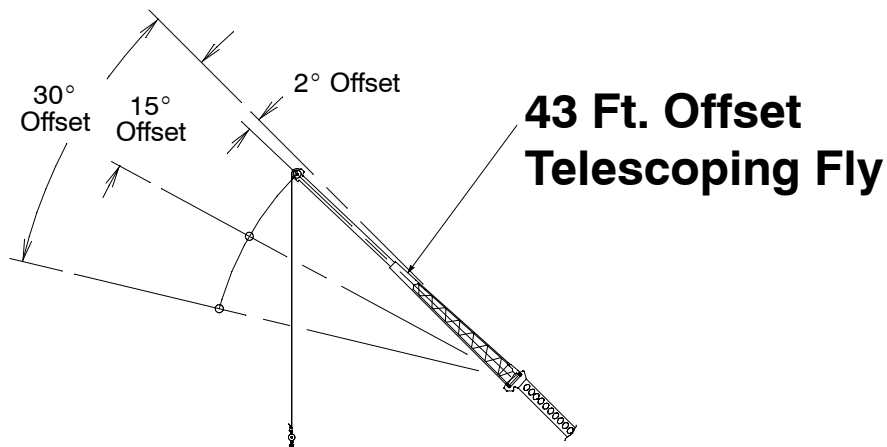
Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.							
70 Ft. Main Boom + 25 Ft. Offset Fly							
Load Radius In Feet	2° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	77.0	11,500					20
25	74.0	10,900	77.5	7,600			25
30	71.0	9,500	74.5	7,000	77.5	5,600	30
35	67.5	8,400	71.0	6,600	74.5	5,200	35
40	64.5	7,300	67.5	5,900	71.0	4,800	40
45	60.5	6,100	64.0	5,400	67.5	4,600	45
50	57.0	5,400	60.5	4,700	63.5	4,400	50
55	53.0	4,500	56.5	4,100	59.5	3,700	55
60	49.0	3,800	52.5	3,800	55.0	3,200	60
65	44.5	3,200	48.0	3,300	50.5	3,000	65
70	39.5	2,600	43.0	2,800	45.5	2,800	70
75	34.5	2,200	37.5	2,300	39.5	2,400	75
80	28.0	1,800	31.0	1,900	32.0	2,000	80
85	19.5	1,500	22.0	1,600	21.5	1,600	85
Min. Boom Angle/Cap.	0°	1,300	0°	1,300	0°	1,400	Min. Boom Angle/Cap.

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**

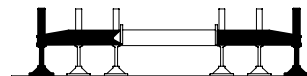


Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Fully Extended Outriggers See Set Up Note 2.							
70 Ft. Main Boom + 25 Ft. Offset Telescoping Fly							
Load Radius In Feet	2° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	77.0	11,300					20
25	74.0	10,800	77.5	7,600			25
30	71.0	9,400	74.5	7,000	77.5	5,600	30
35	68.0	8,300	71.0	6,500	74.5	5,200	35
40	64.5	7,200	67.5	5,900	71.0	4,800	40
45	60.5	5,800	64.5	5,500	67.5	4,500	45
50	57.0	5,000	60.5	4,600	63.5	4,300	50
55	53.0	4,100	56.5	3,800	59.5	3,700	55
60	49.0	3,400	52.5	3,500	55.0	3,000	60
65	44.5	2,800	48.0	3,000	50.5	2,800	65
70	39.5	2,300	43.0	2,400	45.5	2,500	70
75	34.5	1,800	37.5	2,000	39.5	2,000	75
80	28.0	1,500	31.0	1,600	32.0	1,600	80
85	19.5	1,200	22.0	1,200	21.0	1,200	85
Min. Boom Angle/Cap.	0°	900	0°	1,000	0°	1,000	Min. Boom Angle/Cap.

**Note: Refer To Page 7 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.**



70 Ft. Main Boom + 43 Ft. Offset Telescoping Fly

Load Radius In Feet	2° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	78.0*	5,400					20
25	76.5	4,800					25
30	74.0	4,400					30
35	71.5	4,100	76.5	3,100			35
40	69.0	3,800	73.5	2,900	78.0*	2,500	40
45	66.0	3,500	71.0	2,700	76.0	2,400	45
50	63.5	3,200	68.0	2,600	73.0	2,300	50
55	60.5	3,000	65.5	2,500	70.0	2,200	55
60	57.5	2,900	62.0	2,400	67.0	2,100	60
65	54.5	2,800	59.0	2,300	63.5	2,000	65
70	51.0	2,600	56.0	2,200	60.0	1,900	70
75	47.5	2,400	52.5	2,100	56.5	1,900	75
80	43.5	2,000	48.5	2,000	52.5	1,800	80
85	39.5	1,700	44.5	1,900	48.0	1,700	85
90	35.0	1,400	39.5	1,600	43.0	1,600	90
95	30.0	1,200	34.0	1,300	37.0	1,400	95
100	23.0	900	27.0	1,000	29.0	1,100	100

\* This capacity based on maximum obtainable boom angle.

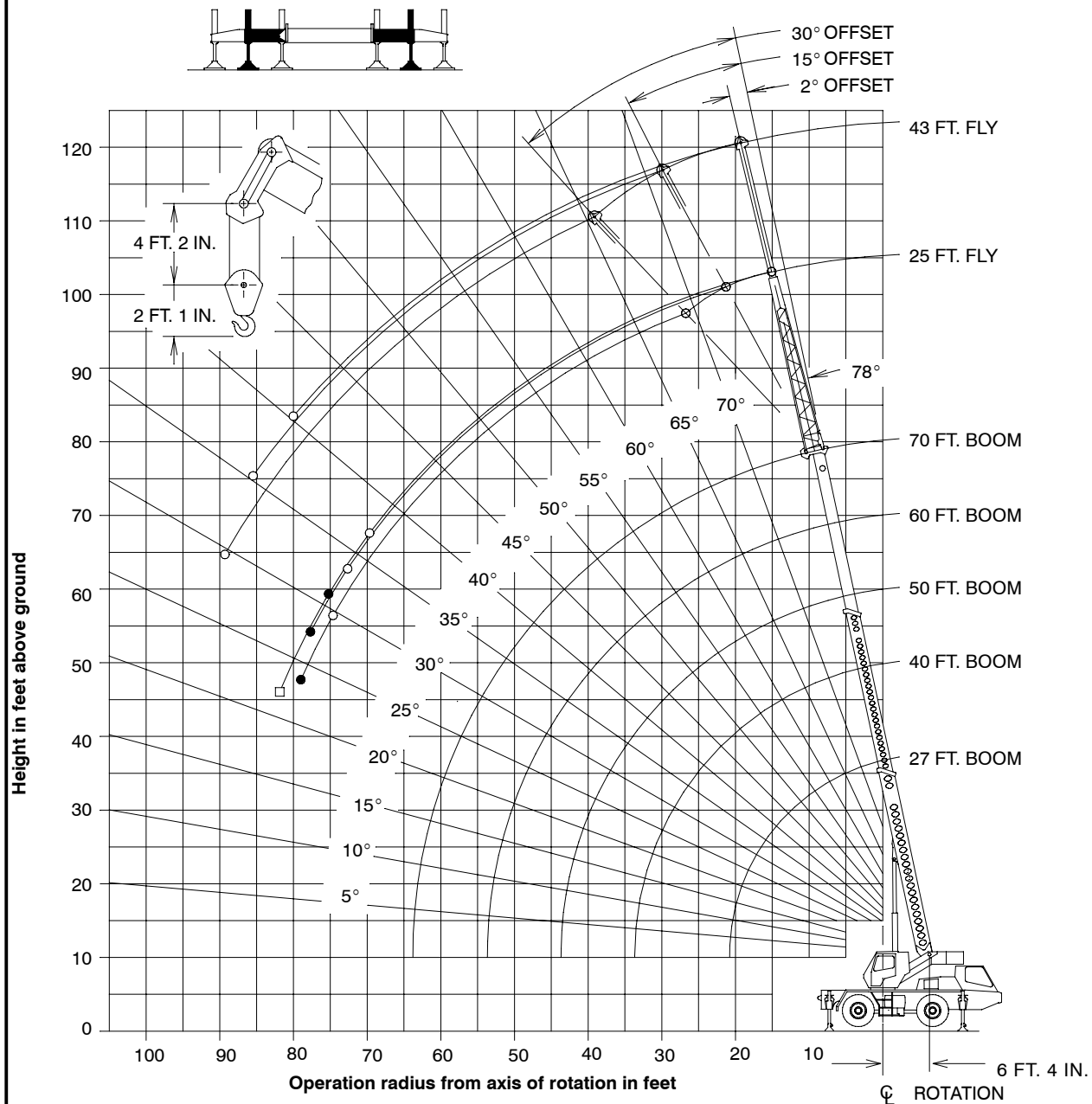
**! WARNING**

**Do Not Lower 43 Ft. Offset Telescoping Fly In Working Position Below 18 Degrees Unless Main Boom Length Is 64 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.**

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**

# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Intermediate Extended Outriggers**



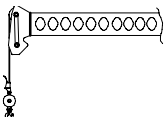
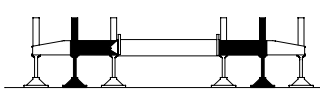
- Denotes 25 Ft. - 43 Ft. Offset Telescoping Fly
- Denotes Offset Fly
- Denotes Fixed Fly

**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

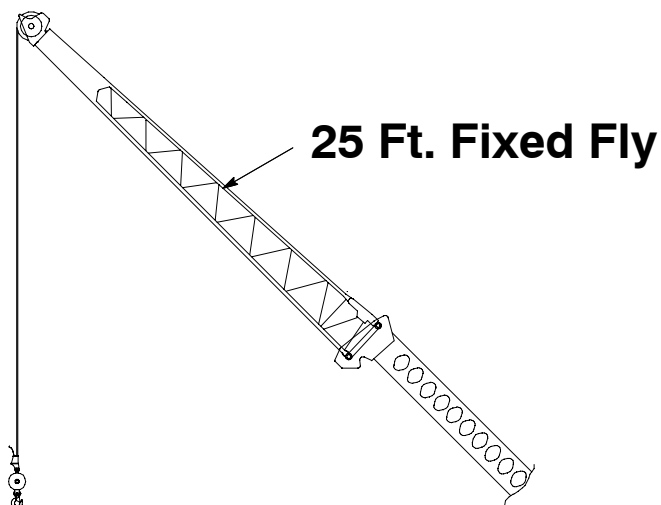
**Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Above Chart For The Boom Lengths Shown. Loss Of Stability Will Occur Causing A Tipping Condition.**

 <b>Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.</b> 							
27 Ft. To 50 Ft. Main Boom							
Load Radius In Feet	27 Ft.		40 Ft.		50 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
9	60.5	41,300	71.0	41,300	75.5	39,100	9
10	58.0	38,300	69.5	38,300	74.5	37,100	10
12	52.5	33,500	66.5	33,500	72.0	33,500	12
15	43.0	26,600	61.5	26,600	68.0	26,600	15
20	19.5	16,000	52.5	16,700	61.5	17,000	20
25			42.0	11,200	54.5	11,500	25
30	See Operation Note 18.		28.5	8,100	46.5	8,300	30
35					37.5	6,200	35
40					25.0	4,800	40
Min. Boom Angle/Cap.	0°	14,900	0°	6,500	0°	4,000	Min. Boom Angle/Cap.

60 Ft. To 70 Ft. Main Boom					
Load Radius In Feet	60 Ft.		70 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
12	75.5	30,500			12
15	72.5	26,600	75.5	22,000	15
20	67.0	17,100	71.0	17,200	20
25	61.5	11,600	66.5	11,700	25
30	55.5	8,400	61.5	8,500	30
35	49.5	6,400	56.5	6,500	35
40	42.0	4,900	51.4	5,000	40
45	34.0	3,800	45.5	3,900	45
50	23.0	3,000	39.5	3,100	50
55			31.5	2,400	55
60			21.5	1,900	60
Min. Boom Angle/Cap.	0°	2,500	0°	1,600	Min. Boom Angle/Cap.

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**



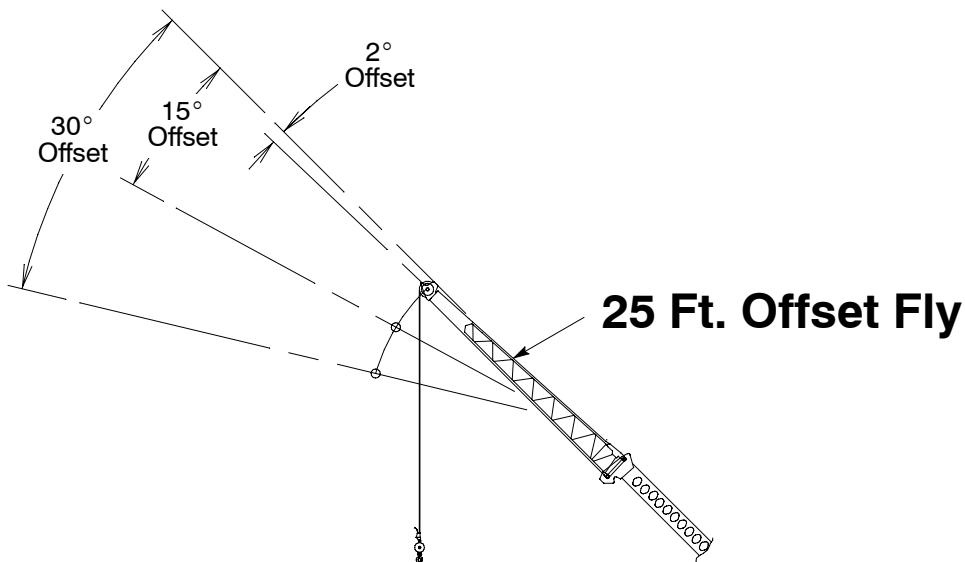


Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.			
70 Ft. Main Boom + 25 Ft. Fixed Fly			
Load Radius In Feet	Loaded Boom Angle (Deg.)	360°	Load Radius In Feet
20	76.5	11,800	20
25	73.5	10,800	25
30	70.0	9,100	30
35	66.5	7,100	35
40	63.0	5,600	40
45	59.5	4,500	45
50	56.0	3,700	50
55	52.0	3,000	55
60	47.5	2,400	60
65	43.0	2,000	65
70	38.5	1,600	70
75	33.0	1,300	75
80	26.5	1,000	80

**⚠ WARNING**

Do Not Lower 25 Ft. Fixed Fly In Working Position Below 22 Degrees Unless Main Boom Length Is 64 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.

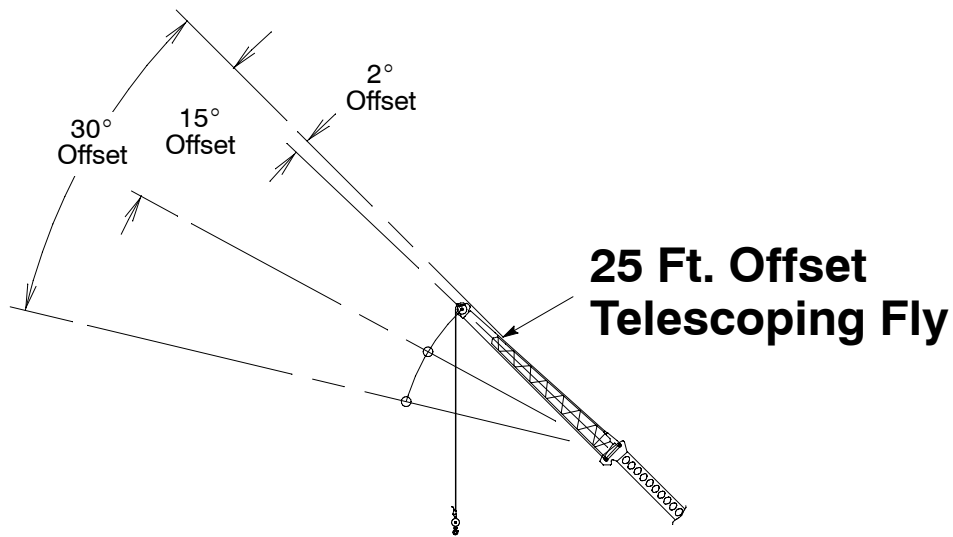


Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.							
70 Ft. Main Boom + 25 Ft. Offset Fly							
Load Radius In Feet	2° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	77.0	11,500					20
25	74.0	10,900	77.5	7,600			25
30	71.0	8,900	74.5	7,000	77.5	5,600	30
35	67.5	6,800	71.0	6,600	74.5	5,200	35
40	64.0	5,300	67.5	5,700	71.0	4,800	40
45	60.5	4,200	64.0	4,600	67.5	4,600	45
50	56.5	3,400	60.0	3,600	63.5	3,900	50
55	52.5	2,700	56.0	2,900	59.5	3,200	55
60	48.5	2,100	52.0	2,300	55.0	2,500	60
65	44.0	1,700	47.5	1,800	50.0	2,000	65
70	39.5	1,300	42.5	1,400	45.0	1,600	70
75	34.0	1,000	37.0	1,100	39.0	1,200	75

**! WARNING**

Do Not Lower 25 Ft. Offset Fly In Working Position Below 31.5 Degrees Unless Main Boom Length Is 58 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.

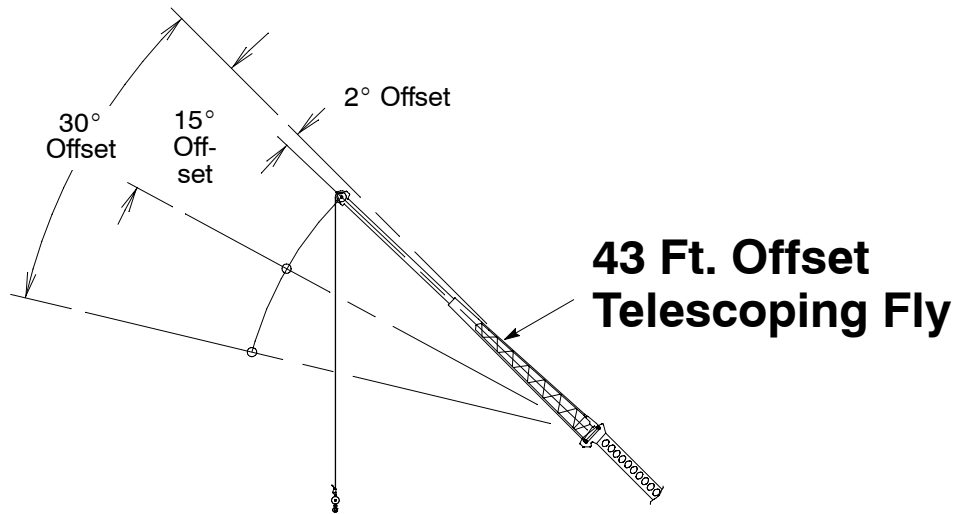


Maximum Allowable Lifting Capacities Rated Lifting Capacities In Pounds On Intermediate Extended Outriggers See Set Up Note 2.							
70 Ft. Main Boom + 25 Ft. Offset Telescoping Fly							
Load Radius In Feet	2° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	77.0	11,300					20
25	74.0	10,800	77.5	7,600			25
30	71.0	8,600	74.5	7,000	77.5	5,600	30
35	67.5	6,500	71.0	6,500	74.5	5,200	35
40	64.0	5,000	67.5	5,400	71.0	4,800	40
45	60.5	3,900	64.0	4,200	67.5	4,500	45
50	56.5	3,000	60.0	3,300	63.5	3,600	50
55	52.5	2,300	56.0	2,600	59.0	2,800	55
60	48.5	1,800	52.0	2,000	55.0	2,200	60
65	44.0	1,300	47.5	1,500	50.0	1,700	65
70			42.5	1,100	45.0	1,200	70

**⚠ WARNING**

Do Not Lower 25 Ft. Offset Telescoping Fly In Working Position Below 37.5 Degrees Unless Main Boom Length Is 53 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.

Note: Refer To Page 7 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 Intermediate Extended Outriggers  
See Set Up Note 2.**



70 Ft. Main Boom + 43 Ft. Offset Telescoping Fly

Load Radius In Feet	2° Offset		15° Offset		30° Offset		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
20	78.0*	5,400					20
25	76.5	4,800					25
30	74.0	4,400					30
35	71.5	4,100	76.5	3,100			35
40	69.0	3,800	73.5	2,900	78.0*	2,500	40
45	66.0	3,500	71.0	2,700	76.0	2,400	45
50	63.5	3,200	68.0	2,600	73.0	2,300	50
55	60.5	2,900	65.5	2,500	70.0	2,200	55
60	57.5	2,400	62.0	2,400	67.0	2,100	60
65	54.0	1,900	59.0	2,200	63.5	2,000	65
70	50.5	1,500	55.5	1,800	60.0	1,900	70
75	47.0	1,200	52.0	1,400	56.5	1,600	75
80	43.5	900	48.0	1,100	52.0	1,300	80

\* This capacity based on maximum obtainable boom angle.



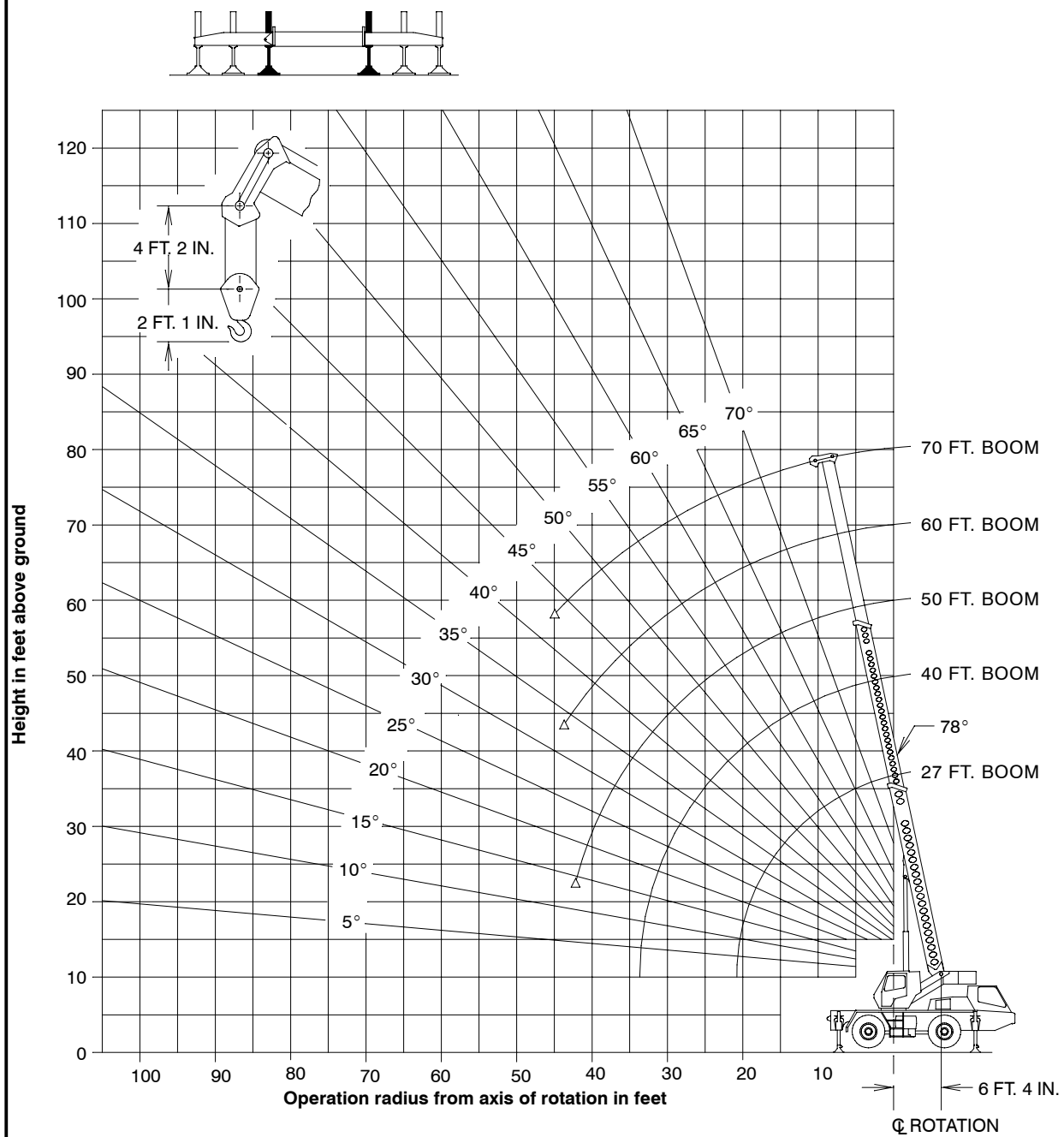
**WARNING**

**Do Not Lower 43 Ft. Offset Telescoping Fly In Working Position Below 41 Degrees Unless Main Boom Length Is 49 Ft. Or Less, Since Loss Of Stability Will Occur Causing A Tipping Condition.**

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**

# WORKING RANGE DIAGRAM

**Working Range Diagram  
On Fully Retracted Outriggers**



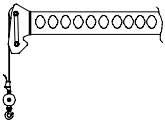

△ Denotes Main Boom

**Note: Boom geometry shown is 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 Above Chart For The Boom Lengths Shown. Loss Of Stability Will Occur Causing A Tipping Condition.**

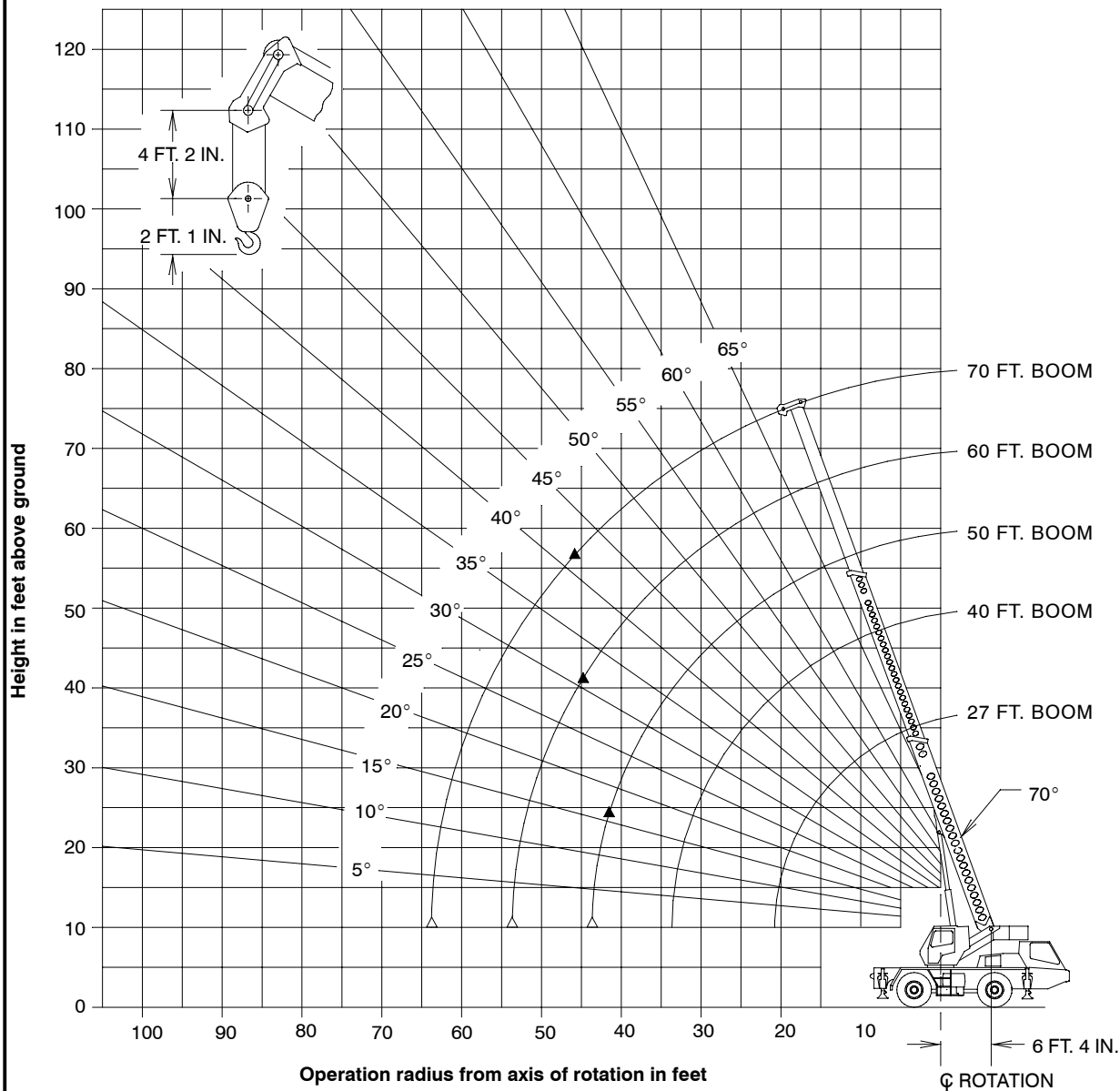
 <b>Maximum Allowable Lifting Capacities</b> <b>Rated Lifting Capacities In Pounds</b> <b>On Fully Retracted Outriggers</b> <b>See Set Up Note 2.</b> 							
27 Ft. To 50 Ft. Main Boom							
Load Radius In Feet	27 Ft.		40 Ft.		50 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
9	60.5	28,100	71.0	28,900	75.5	29,100	9
10	58.0	23,100	69.5	23,800	74.0	24,100	10
12	52.5	16,700	66.0	17,300	71.5	17,600	12
15	43.0	11,400	61.0	11,900	67.5	12,100	15
20	19.5	6,800	52.0	7,300	61.0	7,500	20
25			42.0	4,800	54.0	5,000	25
30	See Operation Note 18.		28.0	3,300	46.0	3,500	30
35					37.0	2,400	35
40					25.0	1,700	40
Min. Boom Angle/Cap.	0°	6,200	0°	2,500	14°		Min. Boom Angle/Cap.

60 Ft. To 70 Ft. Main Boom					
Load Radius In Feet	60 Ft.		70 Ft.		Load Radius In Feet
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
12	75.0	17,700			12
15	72.0	12,200	75.0	12,300	15
20	66.5	7,600	70.5	7,700	20
25	61.0	5,100	66.0	5,200	25
30	55.5	3,600	61.0	3,600	30
35	49.0	2,500	56.5	2,600	35
40	42.0	1,800	51.0	1,800	40
Min. Boom Angle/Cap.	33.5°		43°		Min. Boom Angle/Cap.

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**

# WORKING RANGE DIAGRAM

## Working Range Diagram On Tires



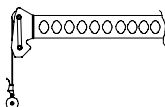


- △ Denotes Main Boom Between Tire Tracks Over Rear Or Boom Centered Over Rear
- ▲ Denotes Main Boom 360°

**Note: Boom geometry shown is 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

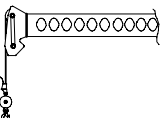


**Do Not Lower The Boom Below The Minimum Boom Angle For No Load As Shown In The Above Chart For The Boom Lengths Shown. Loss Of Stability Will Occur Causing A Tipping Condition.**

 <b>On Tire Capacities In Pounds With 17.50 R25-2 ★ Tires</b> <b>Tire Pressure: 102 PSI</b> <b>Stationary Capacities - Between Tire Tracks Over Rear</b> <b>See Operation Note 19.</b>  							
Load Radius In Feet	27 Ft. to 50 Ft. Main Boom						Load Radius In Feet
	27 Ft.		40 Ft.		50 Ft.		
	Loaded Boom Angle (Deg.)	Load	Loaded Boom Angle (Deg.)	Load	Loaded Boom Angle (Deg.)	Load	
9	60.5	26,600					9
10	58.0	24,900					10
12	52.5	18,800					12
15	43.5	13,100	61.5	13,600			15
20	19.5	8,100	52.5	8,600	61.5	8,800	20
25			42.0	5,900	54.5	6,100	25
30	See Operation Note 18.		28.5	4,200	47.0	4,400	30
35					37.5	3,200	35
40					25.5	2,300	40
Min. Boom Angle/Cap.	0°	7,600	0°	3,300	0°	1,900	Min. Boom Angle/Cap.

Load Radius In Feet	60 Ft. to 70 Ft. Main Boom				Load Radius In Feet
	60 Ft.		70 Ft.		
	Loaded Boom Angle (Deg.)	Load	Loaded Boom Angle (Deg.)	Load	
25	62.0	6,200			25
30	56.0	4,500	62.0	4,500	30
35	49.5	3,300	57.5	3,400	35
40	42.5	2,400	52.0	2,500	40
45	34.5	1,800	46.0	1,900	45
50	23.5	1,300	39.5	1,300	50
55			32.0	900	55
60			22.0	600	60
Min. Boom Angle/Cap.	0°	1,000	0°		Min. Boom Angle/Cap.

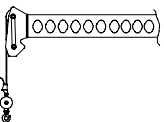

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**



 <b>On Tire Capacities In Pounds With 17.50 R25-2 ★ Tires</b> <b>Tire Pressure: 102 PSI</b> <b>Pick &amp; Carry Capacities - (2.5 MPH) Boom Centered Over Rear</b>   <b>See Operation Note 19.</b>							
Load Radius In Feet	27 Ft. to 50 Ft. Main Boom						Load Radius In Feet
	27 Ft.		40 Ft.		50 Ft.		
	Loaded Boom Angle (Deg.)	Load	Loaded Boom Angle (Deg.)	Load	Loaded Boom Angle (Deg.)	Load	
9	60.5	21,600					9
10	58.0	20,000					10
12	52.5	17,400					12
15	43.5	13,100	61.5	13,600			15
20	19.5	8,100	52.5	8,600	61.5	8,800	20
25			42.0	5,900	54.5	6,100	25
30	See Operation Note 18.		28.5	4,200	47.0	4,400	30
35					37.5	3,200	35
40					25.5	2,300	40
Min. Boom Angle/Cap.	0°	7,600	0°	3,300	0°	1,900	Min. Boom Angle/Cap.

Load Radius In Feet	60 Ft. to 70 Ft. Main Boom				Load Radius In Feet
	60 Ft.		70 Ft.		
	Loaded Boom Angle (Deg.)	Load	Loaded Boom Angle (Deg.)	Load	
25	62.0	6,200			25
30	56.0	4,500	62.0	4,500	30
35	49.5	3,300	57.5	3,400	35
40	42.5	2,400	52.0	2,500	40
45	34.5	1,800	46.0	1,900	45
50	23.5	1,300	39.5	1,300	50
55			32.0	900	55
60			22.0	600	60
Min. Boom Angle/Cap.	0°	1,000	0°		Min. Boom Angle/Cap.

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**

 <b>On Tire Capacities In Pounds With 17.50 R25-2 ★ Tires</b> Tire Pressure: 102 PSI Stationary Capacities - 360° See Operation Note 19. 							
Load Radius In Feet	27 Ft. to 50 Ft. Main Boom						Load Radius In Feet
	27 Ft.		40 Ft.		50 Ft.		
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
9	60.5	21,200					9
10	58.0	17,700					10
12	52.5	13,000					12
15	43.5	8,900	61.5	9,400			15
20	19.5	5,200	52.5	5,700	61.5	5,900	20
25			42.0	3,700	54.5	3,900	25
30			28.5	2,400	47.0	2,600	30
35	See Operation Note 18.				37.5	1,700	35
40					25.5	1,100	40
Min. Boom Angle/Cap.	0°	4,800	0°	1,700	17°		Min. Boom Angle/Cap.

Load Radius In Feet	60 Ft. to 70 Ft. Main Boom				Load Radius In Feet
	60 Ft.		70 Ft.		
	Loaded Boom Angle (Deg.)	360°	Loaded Boom Angle (Deg.)	360°	
25	62.0	4,000			25
30	56.0	2,700	62.0	2,700	30
35	49.5	1,800	57.5	1,900	35
40	42.5	1,200	52.0	1,200	40
45	34.5	700	46.0	700	45
Min. Boom Angle/Cap.	32°		42°		Min. Boom Angle/Cap.

**Note: Refer To Page 7 For "Lifting Capacity Deductions" For Capacity Reductions Caused By Stowed Or Erected Auxiliary Load Handling Equipment.**

**Patents**

This crane is covered by one or more of the following patents:

United States:

4,011,699	4,106,688	4,380,244
4,398,698	4,431,109	4,434,902
	4,491,229	

Canada

Patented Brevete:

1,024,471	(1978)
1,045,586	(1979)

Mexico

Patentado:

141,976
142,085

Italy

Brevettato:

1.053.941
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