GUAY

Link-Belt®
CONSTRUCTION EQUIPMENT

RTC - 8040 *Series II*

CRANE RATING MANUAL
4 - SECTION POWER BOOM
23.5 X 25 - 20 PLY RATING TIRES

SERIAL NUMBER **F7J0-3281**

For Replacement, Order Part Number F7P0042.
(050508)

® Link-Belt is a registered trademark.

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⚠ WARNING

READ AND UNDERSTAND THE OPERATOR'S AND SAFETY MANUALS AND THE FOLLOWING INSTRUCTIONS AND RATED LIFTING CAPACITIES 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 ASME B30.5 safety standards for cranes.
4. The rated 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 operating on tires over the side, do not exceed 75° maximum boom angle. Loss of backward stability will occur causing a backward tipping condition.
4. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 20 and Tire Inflation.)
5. For required parts of line, see Wire Rope Capacity and Winch Performance.
6. Before setting up on intermediate outriggers, retracted outriggers, or tires, refer to Working Range Diagrams and rated lifting capacities to determine allowable crane configurations.

OPERATION:

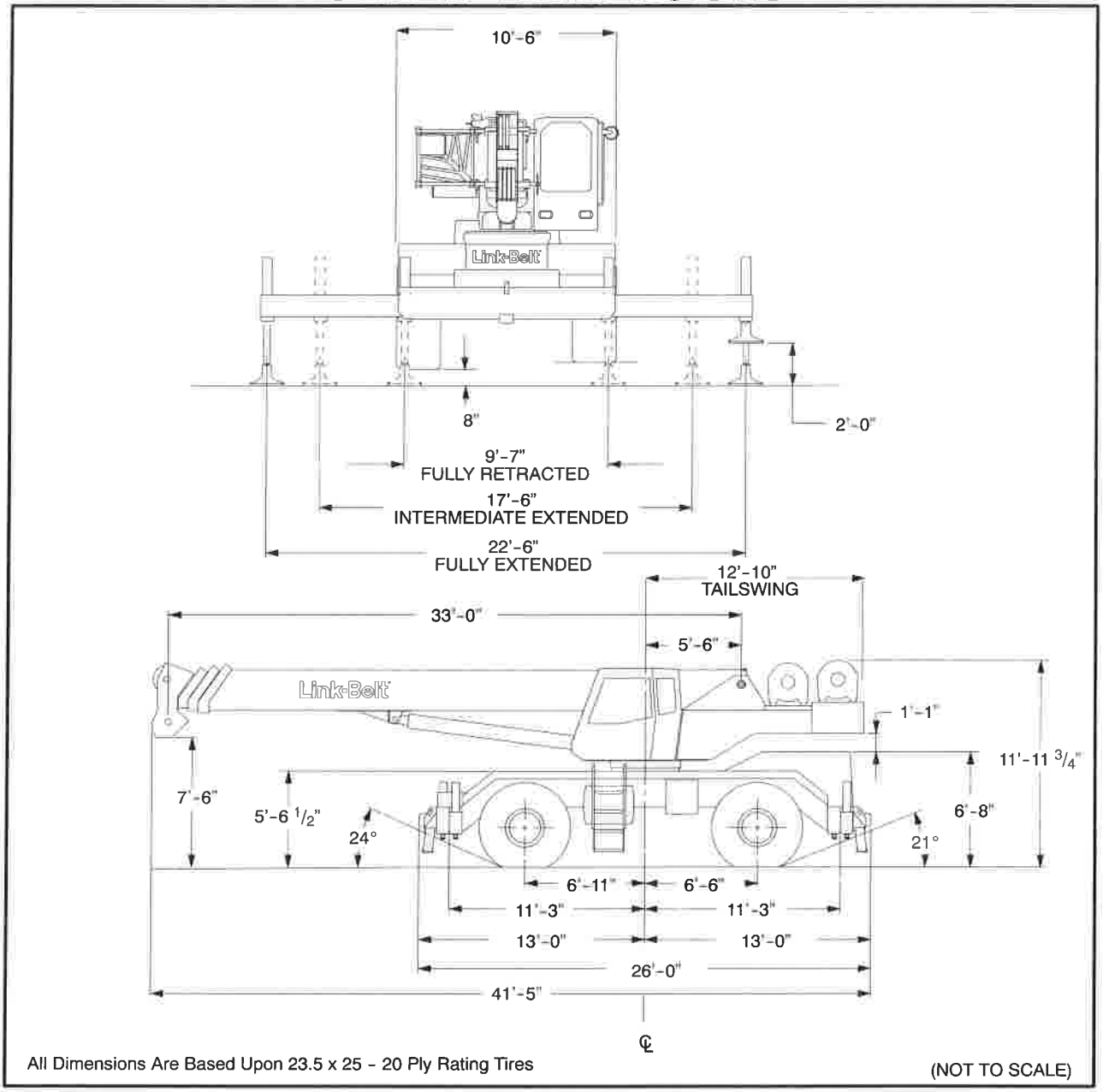
1. Rated lifting capacities at rated radii shall not be exceeded. Do not tip the crane to determine allowable loads. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacities. For clamshell bucket operation, weight of bucket and bucket contents is restricted to a maximum weight of 6000 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 6000 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. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads. Rated lifting capacities shown on intermediate extended or fully retracted outriggers are determined by the formula, rated load = (tipping load - 0.1 X load factor) / 1.25. Rated lifting capacities shown on tires do not exceed 75% of the tipping loads. Tipping loads are determined by SAE crane stability test code J-765.
3. Rated lifting capacities in the shaded areas are based on structural strength or hydraulic limitations and have been tested to meet minimum requirements of SAE J-1063 cantilevered boom crane structures–method of test. Rated lifting capacities in the non–shaded areas are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
4. Rated lifting capacities include the weight of hook ball/block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated capacity to obtain the net load that can be lifted. Rated lifting capacities include the deduct for either fly stowed on the base of the boom. For deducts of either fly erected, but not used, 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 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 that 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, traveling with loads, electrical wires, etc. Side load on boom or fly is dangerous and shall be avoided.
11. Rated lifting capacities do not account for wind on suspended load or boom. Rated capacities and boom length shall be appropriately reduced as wind velocity approaches 20 mph.
12. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 feet.
13. Power sections of boom must be extended in accordance with boom mode "A" or "B". In boom mode "B" all power sections must be extended or retracted equally.
14. The least stable rated working area depends on the configuration of the crane set up.
15. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see Wire Rope Capacity) 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.
16. 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.
17. For fly capacities with main boom length less than 105 ft. and greater than 80 ft., the rated loads are determined by the boom angle using the 105 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the rated capacity.
18. For fly capacities with main boom length less than 80 ft. the rated loads are determined by the boom angle only using the 80 ft. boom and fly chart. For angles not shown, use the next lower boom angle to determine the rated capacity.
19. The 33 ft. boom length structural 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.
20. Rated lifting capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire capacities require lifting from main boom head only on a smooth and level surface. Pick and carry operations are restricted to speed of 1 mph . The boom must be centered over the front of the crane with two–position travel swing lock engaged and the load must be restrained from swinging. Lifts with any fly erected on tires are prohibited. For correct tire pressure, see Tire Inflation.

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: $\measuredangle^{\circ}$ The angle between the boom base section and horizontal with freely suspended 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.
6. No Load Stability Limit: The radius or boom angle beyond which it is not permitted to position the boom because the crane can overturn without any load on the hook.
7. Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.

GENERAL DIMENSIONS



All Dimensions Are Based Upon 23.5 x 25 - 20 Ply Rating Tires

(NOT TO SCALE)

TIRE INFLATION

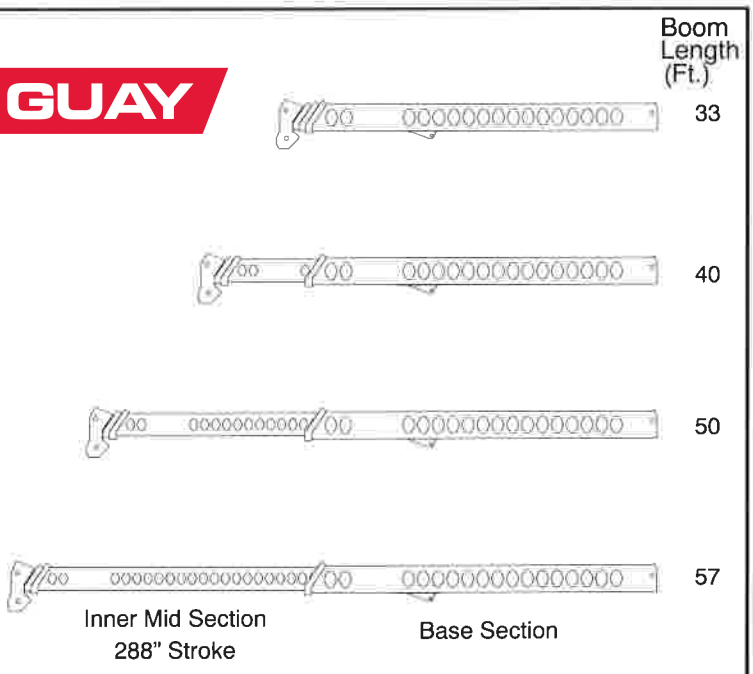
Tire Size	Operation	Tire Pressure (psi)
23.5 X 25-20 Ply Rating	1 mph	80
	Stationary	80

PONTOON LOADINGS

Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure:
63,500 lb	213 psi

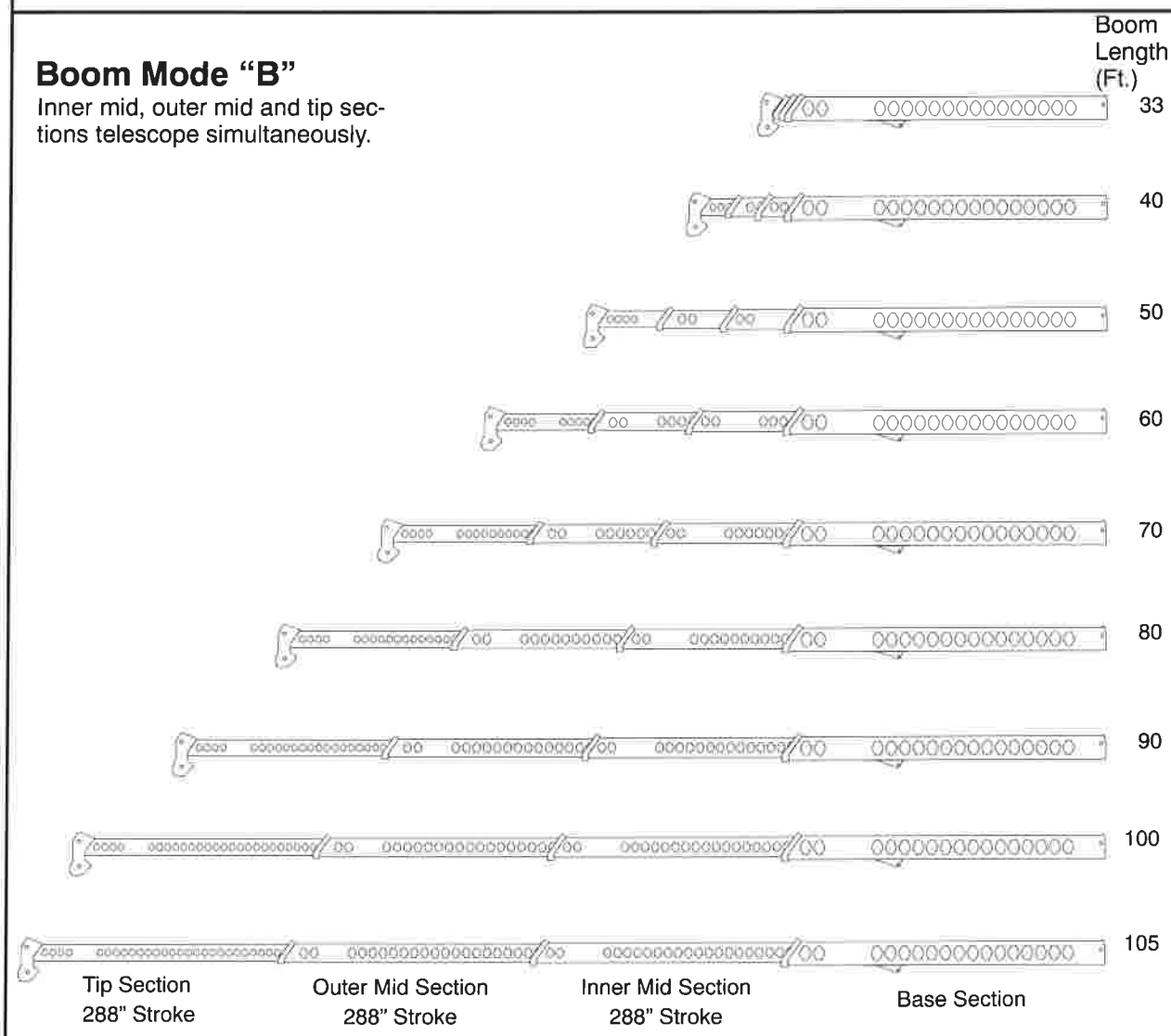
Boom Mode "A"

Only inner mid section telescopes.



Boom Mode "B"

Inner mid, outer mid and tip sections telescope simultaneously.



WINCH PERFORMANCE

Winch Line Pulls			Drum Rope Capacity (Ft.)	
	Two Speed Winch			
Wire Rope Layer	Low Speed Available Lbs.*	High Speed Available Lbs.	Layer	Total
1	15,390	7,302	114	114
2	14,150	6,714	124	238
3	13,094	6,213	134	372
4	12,185	5,781	144	516
5	11,394	5,406	154	670
* Maximum lifting capacity: Type RB Rope = 12,920 Type ZB Rope = 15,600				

WIRE ROPE CAPACITY

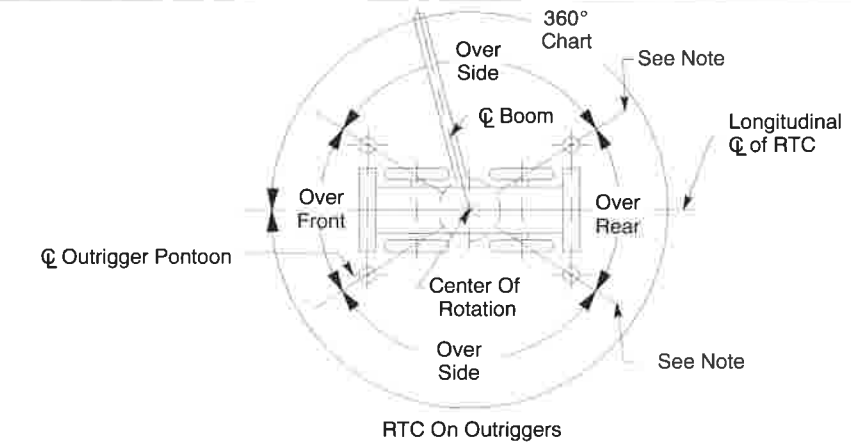
Maximum Lifting Capacities Based On Wire Rope Strength			
Parts of Line	3/4" Type RB	3/4" Type ZB	Notes
1	12,920	15,600	Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in the Crane Rating Manual. Study Operator's Manual for wire rope inspection procedures and single part of line applications.
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	

LBCE	DESCRIPTION
TYPE RB	18 X 19 Rotation Resistant - Compacted Strand - High Strength, Preformed, Right Regular Lay
TYPE ZB	36 X 7 Rotation Resistant - Extra Improved Plow Steel - Right Regular Lay.

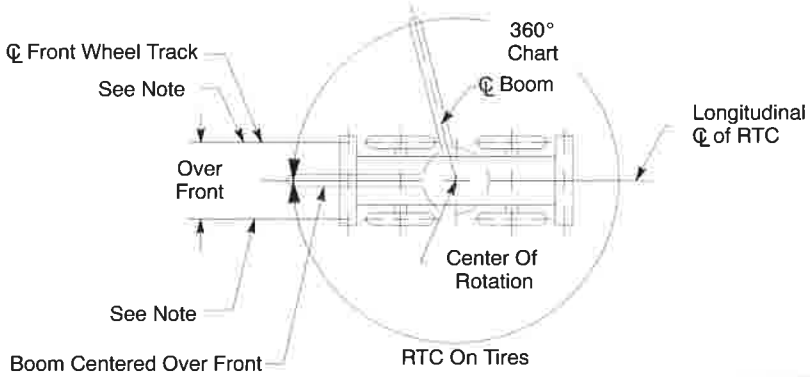
HYDRAULIC CIRCUIT PRESSURE SETTINGS

Function	Pressure (psi)
Front and Rear Winch	3500
Outrigger	3000
Boom Hoist	3350
Telescope	3000
Swing	1500
Steering	2500
Pilot Control	500

WORKING AREAS



RTC On Outriggers



RTC On Tires

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

CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

Load Handling Equipment	Weight (lbs)
Auxiliary Head Attached	100
40 Ton Quick Reeve 4 Sheave Hook Block (See Hook Block For Actual Weight)	720
8.5 Ton Hook Ball (See Hook Ball For Actual Weight)	360

Lifting From Main Boom With:	
28.5 Ft. Or 51 Ft. Fly Stowed On Boom Base (See Operation Note 4)	0
28.5 Ft. Offset Fly Erected But Not Used	2800
51 Ft. Offset Fly Erected But Not Used	5000

Lifting From 28.5 Ft. Offset Fly With:	
22.5 Ft. Fly Tip Erected But Not Used	**PROHIBITED**
22.5 Ft. Fly Tip Stowed On 28.5 Ft. Offset Fly	**PROHIBITED**

Note: Capacity deductions are for Link-Belt supplied equipment only.

WORKING RANGE DIAGRAM



Fully Extended Outriggers

◯ **Denotes Main Boom + 51 Ft. Offset Fly-Boom Mode "B"**

☐ **Denotes Main Boom + 28.5 Ft. Offset 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 Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

Rated Lifting Capacities In Pounds
Fully Extended Outriggers
See Set Up Note 2



FULL



MAIN BOOM
"A"

Load Radius (Ft.)	50 Ft.			57 Ft.			Load Radius (Ft.)
	∠°	360°	Over Front	∠°	360°	Over Front	
10	75.0	70,500	70,500	77.0	43,800	43,800	10
12	73.0	65,600	65,600	75.0	43,800	43,800	12
15	69.0	57,400	57,400	72.0	42,200	42,200	15
20	62.5	46,800	46,800	66.5	34,200	34,200	20
25	55.5	35,700	35,700	61.0	28,700	28,700	25
30	48.0	28,200	28,200	54.5	24,500	24,500	30
35	39.0	22,900	22,900	48.0	21,300	21,300	35
40	27.5	17,700	18,800	40.0	17,500	18,600	40
45				30.5	13,800	14,700	45
50				16.5	11,000	11,800	50
Min.Boom Angle/Cap.	0 (44.5)	10,400	10,400	0 (51.5)	7,900	7,900	Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

Rated Lifting Capacities In Pounds
Fully Extended Outriggers
See Set Up Note 2



FULL



MAIN BOOM
"B"

Load Radius (Ft.)	33 Ft.			40 Ft.			50 Ft.			Load Radius (Ft.)
	∠°	360°	Over Front	∠°	360°	Over Front	∠°	360°	Over Front	
10	66.0	80,000	80,000	70.5	35,000	35,000	74.5	35,000	35,000	10
12	62.0	73,800	75,200	67.5	35,000	35,000	72.5	35,000	35,000	12
15	55.5	63,100	64,300	62.5	35,000	35,000	68.5	35,000	35,000	15
20	43.5	47,300	47,300	54.0	35,000	35,000	62.5	35,000	35,000	20
25	26.5	36,100	36,100	44.0	35,000	35,000	55.5	35,000	35,000	25
30				31.0	29,200	29,200	48.0	29,800	29,800	30
35							39.0	24,400	24,400	35
40							27.5	19,500	20,400	40
Min.Bm. Angle/ Cap.	0 (27.5)	20,200	20,200	0 (34.5)	15,000	15,000	0 (44.5)	10,300	10,300	Min.Bm. Angle/ Cap.

Load Radius (Ft.)	60 Ft.			70 Ft.			80 Ft.			Load Radius (Ft.)
	∠°	360°	Over Front	∠°	360°	Over Front	∠°	360°	Over Front	
10	77.5	35,000	35,000							10
12	75.5	35,000	35,000							12
15	72.5	35,000	35,000	75.5	35,000	35,000				15
20	67.5	35,000	35,000	71.5	35,000	35,000	74.5	30,500	30,500	20
25	62.5	35,000	35,000	67.5	35,000	35,000	71.0	26,300	26,300	25
30	56.5	30,100	30,100	62.5	30,300	30,300	67.0	22,900	22,900	30
35	50.5	24,800	24,800	58.0	25,000	25,000	63.0	20,200	20,200	35
40	43.5	19,800	20,700	52.5	19,900	20,900	58.5	18,000	18,000	40
45	35.5	15,900	16,900	46.5	16,100	17,100	54.0	16,200	16,200	45
50	25.0	13,100	13,900	40.5	13,200	14,100	49.0	13,400	14,200	50
55				33.0	11,100	11,900	44.0	11,200	12,000	55
60				23.5	9,300	10,000	38.0	9,500	10,200	60
65							31.0	8,000	8,700	65
70							22.0	6,800	7,400	70
Min.Bm. Angle/ Cap.	0 (54.5)	7,400	7,400	0 (64.5)	5,400	5,400	0 (74.5)	3,900	3,900	Min.Bm. Angle/ Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

Rated Lifting Capacities In Pounds
Fully Extended Outriggers
See Set Up Note 2



FULL



MAIN BOOM "B"

Load Radius (Ft.)	90 Ft.			100 Ft.			105 Ft.			Load Radius (Ft.)
	∠°	360°	Over Front	∠°	360°	Over Front	∠°	360°	Over Front	
20	77.0	27,100	27,100							20
25	73.5	23,400	23,400	76.0	20,900	20,900	76.5	17,500	17,500	25
30	70.0	20,400	20,400	73.0	18,600	18,600	74.0	17,500	17,500	30
35	66.5	18,000	18,000	69.5	16,200	16,200	71.0	15,700	15,700	35
40	63.0	16,000	16,000	66.5	14,500	14,500	68.0	13,900	13,900	40
45	59.5	14,300	14,300	63.5	13,000	13,000	65.0	12,200	12,200	45
50	55.5	13,000	13,000	60.0	11,700	11,700	62.0	10,700	10,700	50
55	51.0	11,300	11,800	56.5	10,600	10,600	58.5	9,500	9,500	55
60	46.5	9,600	10,200	53.0	9,600	9,700	55.0	8,400	8,400	60
65	41.5	8,100	8,700	49.0	8,200	8,800	51.5	7,500	7,500	65
70	36.0	7,000	7,500	44.5	7,000	7,600	47.5	6,800	6,800	70
75	29.5	6,000	6,500	40.0	6,000	6,500	43.5	6,000	6,100	75
80	21.0	5,100	5,600	34.5	5,200	5,600	39.0	5,200	5,500	80
85				28.5	4,400	4,900	34.0	4,500	4,900	85
90				20.5	3,800	4,200	28.0	3,800	4,200	90
95							20.0	3,200	3,600	95
Min.Bm. Angle/ Cap.	0 (84.5)	2,800	2,800	0 (94.5)	2,000	2,000	0 (99.5)	1,600	1,600	Min.Bm. Angle/ Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

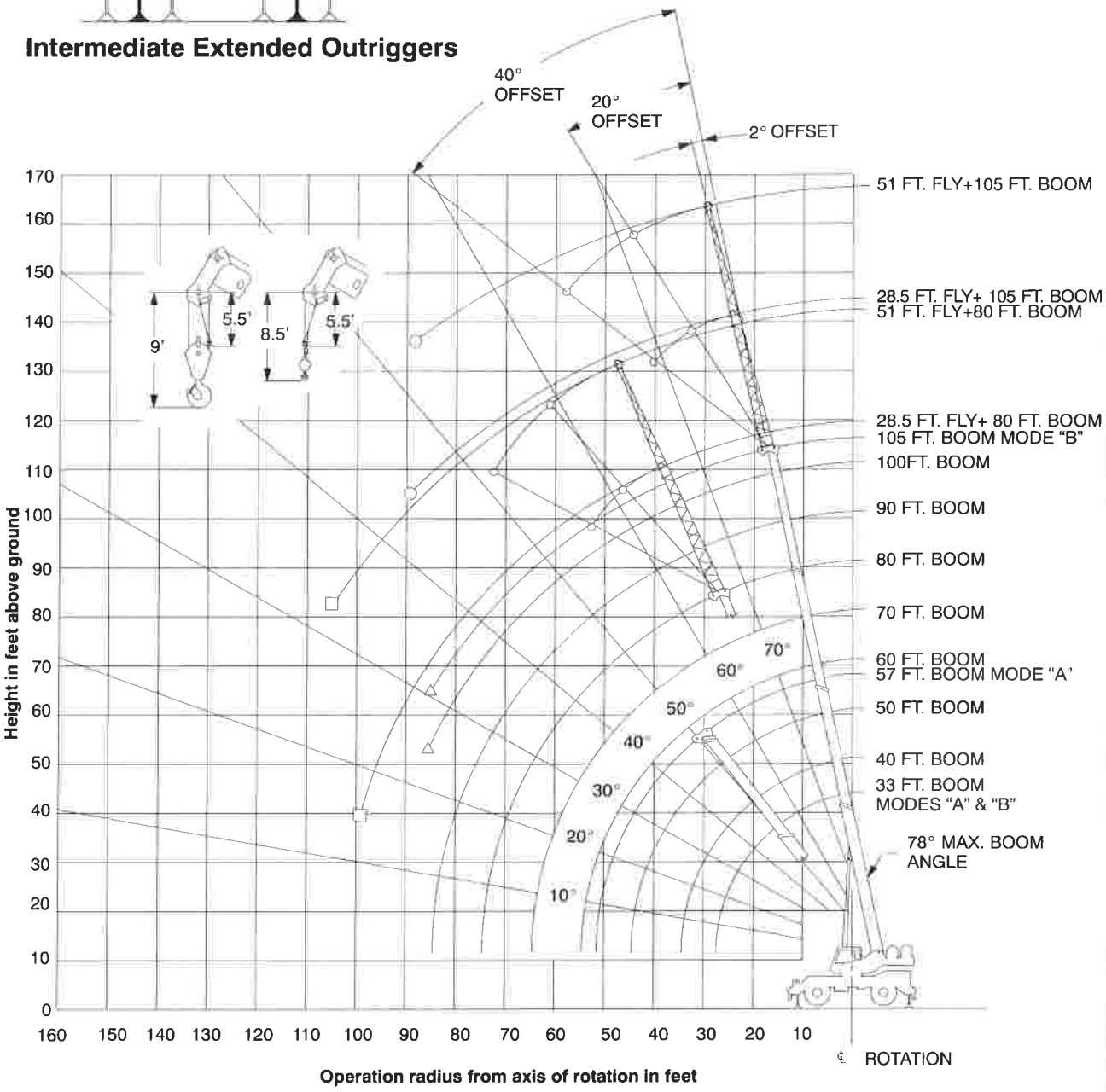
( ) Reference Radius For Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

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WORKING RANGE DIAGRAM



Intermediate Extended Outriggers



◯ **Denotes Main Boom + 51 Ft. Offset Fly - Boom Mode "B"**

□ **Denotes Main Boom + 28.5 Ft. Offset Fly - Boom Mode "B"**

△ **Denotes Main Boom - 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 Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

Rated Lifting Capacities In Pounds
Intermediate Extended Outriggers
See Set Up Note 2



INTERMEDIATE



MAIN BOOM
"A"

Load Radius (Ft.)	33 Ft.		40 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	
10	66.0	77,300	70.5	72,100	10
12	62.0	68,300	67.5	68,000	12
15	55.5	57,800	62.5	57,600	15
20	43.5	43,500	54.0	43,200	20
25	26.5	28,600	44.0	28,400	25
30			31.0	19,800	30
Min.Boom Angle/Cap.	0 (27.5)	20,200	0 (34.5)	14,700	Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius for Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

Rated Lifting Capacities In Pounds Intermediate Extended Outriggers. See Set Up Note 2



INTERMEDIATE



MAIN BOOM "A"

Load Radius (Ft.)	50 Ft.		57 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	
10	75.0	70,500	77.0	43,800	10
12	73.0	65,600	75.0	43,800	12
15	69.0	57,300	72.0	42,200	15
20	62.5	42,900	66.5	34,200	20
25	55.5	27,800	61.0	27,600	25
30	48.0	19,500	54.5	19,300	30
35	39.0	14,200	47.5	14,100	35
40	27.5	10,700	40.0	10,600	40
45			30.5	8,000	45
50			16.0	5,900	50
Min.Boom Angle/Cap	0 (44.5)	8,100	0 (51.5)	5,400	Min.Boom Angle/Cap

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius for Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

Rated Lifting Capacities In Pounds
Intermediate Extended Outriggers
See Set Up Note 2



INTERMEDIATE



MAIN BOOM
"B"

Load Radius (Ft.)	33 Ft.		40 Ft.		50 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	∠°	360°	
10	66.0	77,300	70.5	35,000	74.5	35,000	10
12	62.0	68,300	67.5	35,000	72.5	35,000	12
15	55.5	57,800	62.5	35,000	68.5	35,000	15
20	43.5	43,500	54.0	35,000	62.5	35,000	20
25	26.5	28,600	43.5	29,400	55.5	29,900	25
30			31.0	20,700	47.5	21,400	30
35					39.0	16,000	35
40					27.5	12,300	40
Min. Boom Angle/Cap.	0 (27.5)	20,200	0 (34.5)	15,000	0 (44.5)	9,800	Min. Boom Angle/Cap.

Load Radius (Ft.)	60 Ft.		70 Ft.		80 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	∠°	360°	
10	77.5	35,000					10
12	75.5	35,000					12
15	72.5	35,000	75.5	35,000			15
20	67.5	35,000	71.5	35,000	74.5	30,500	20
25	62.5	30,100	67.0	30,300	71.0	26,300	25
30	56.5	21,600	62.5	21,800	67.0	21,900	30
35	50.0	16,300	57.5	16,500	62.5	16,600	35
40	43.5	12,700	52.0	12,800	58.0	12,900	40
45	35.5	10,000	46.5	10,300	53.5	10,400	45
50	25.0	8,000	40.0	8,300	48.5	8,400	50
55			32.5	6,700	43.5	6,800	55
60			23.0	5,400	37.5	5,500	60
65					30.5	4,500	65
70					22.0	3,600	70
Min.Boom Angle/Cap.	0 (54.5)	6,500	0 (64.5)	4,400	0 (74.5)	2,900	Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius for Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

Rated Lifting Capacities In Pounds
Intermediate Extended Outriggers
See Set Up Note 2



INTERMEDIATE



MAIN BOOM "B"

Load Radius (Ft.)	90 Ft.		100 Ft.		105 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	∠°	360°	
20	77.0	27,100					20
25	73.5	23,400	76.0	20,900	76.5	17,500	25
30	70.0	20,400	73.0	18,600	74.0	17,500	30
35	66.5	16,600	69.5	16,200	71.0	15,700	35
40	62.5	13,000	66.5	13,100	68.0	13,100	40
45	59.0	10,500	63.0	10,500	64.5	10,600	45
50	55.0	8,500	59.5	8,600	61.5	8,600	50
55	50.5	6,900	56.0	7,000	58.0	7,000	55
60	46.0	5,700	52.0	5,700	54.5	5,800	60
65	41.0	4,600	48.0	4,700	51.0	4,700	65
70	35.5	3,700	44.0	3,800	47.0	3,900	70
75	29.0	3,000	39.0	3,100	43.0	3,100	75
80	20.5	2,300	34.0	2,400	38.5	2,500	80
85			28.0	1,900	33.0	1,900	85
Min.Boom Angle/Cap.	0 (84.5)	1,800	24.5 (87.1)		30.5 (87.4)		Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

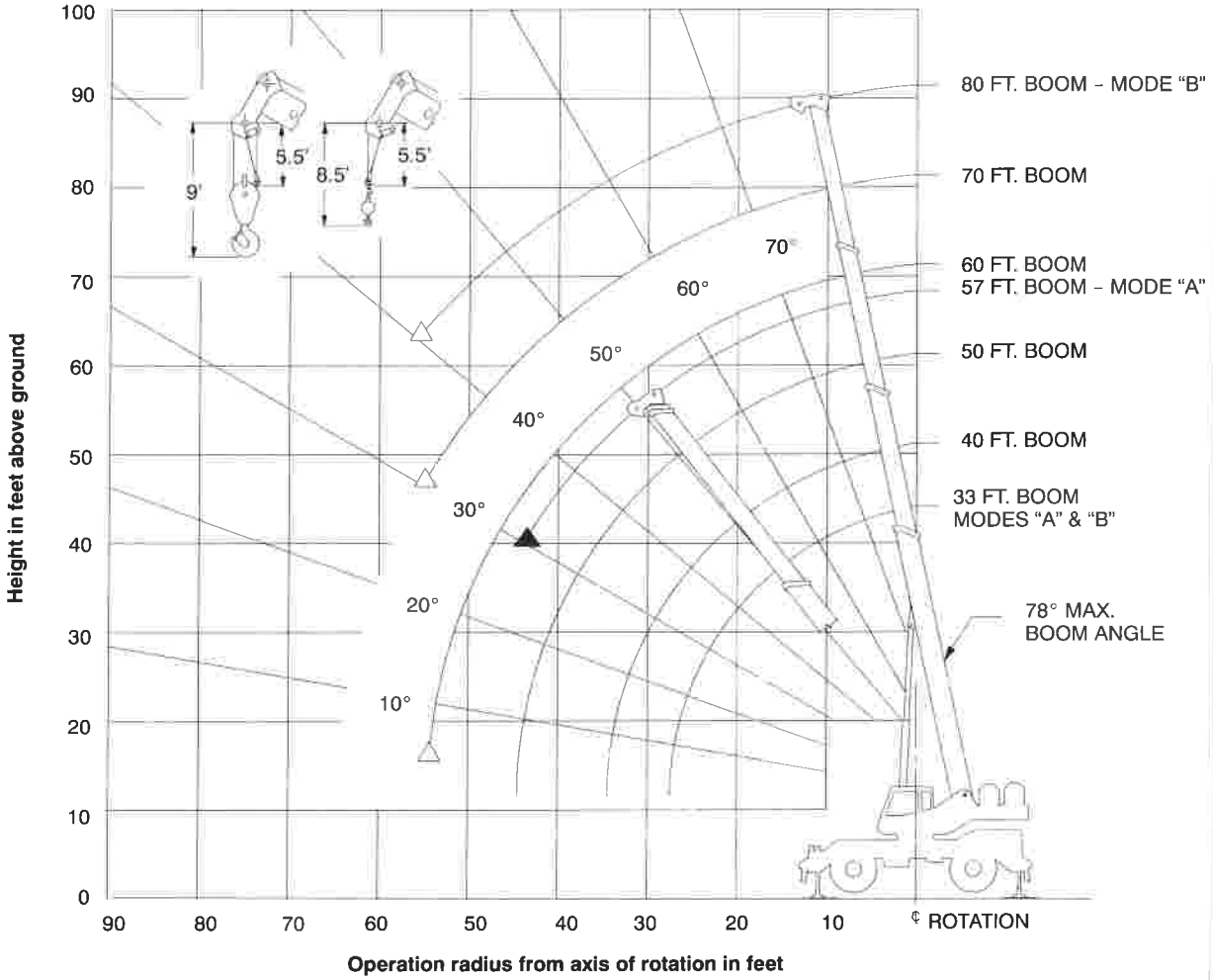
( ) Reference Radius for Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

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WORKING RANGE DIAGRAM



Fully Retracted Outriggers



Crane Configurations Prohibited:
Boom Lengths Greater than 80 FT.
28.5 FT. Offset Fly
51 FT. Offset Fly

▲ **Denotes Main Boom - Boom Mode "A"**

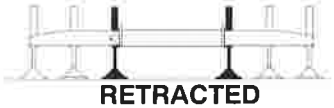
△ **Denotes Main Boom - Boom Mode "B"**

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 Stability As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

Rated Lifting Capacities In Pounds
Fully Retracted Outriggers
See Set Up Note 2



RETRACTED



MAIN BOOM "A"

Load Radius (Ft.)	33 Ft.		40 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	
10	66.0	**60,800**	70.5	**60,500**	10
12	62.0	47,200	67.5	46,500	12
15	55.5	31,200	62.5	30,700	15
20	43.5	18,300	53.5	18,100	20
25	26.5	11,800	43.5	11,700	25
30			31.0	7,700	30
Min.Boom Angle/Cap.	0 (27.5)	9,400	0 (34.5)	5,100	Min.Boom Angle/Cap.

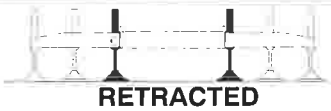
Load Radius (Ft.)	50 Ft.		57 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	
10	75.0	**60,100**	77.0	**43,800**	10
12	72.5	45,800	75.0	**43,800**	12
15	68.5	30,100	72.0	29,800	15
20	62.0	17,800	66.0	17,500	20
25	55.0	11,500	60.5	11,300	25
30	47.5	7,500	54.0	7,400	30
35	38.5	4,900	47.5	4,800	35
40	27.5	3,000	39.5	3,000	40
Min.Boom Angle/Cap.	0 (44.5)	1,600	30.5 (44.7)		Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius for Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

Rated Lifting Capacities In Pounds
Fully Retracted Outriggers.
See Set Up Note 2



RETRACTED



MAIN BOOM "B"

Load Radius (Ft.)	33 Ft.		40 Ft.		50 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	∠°	360°	
10	66.0	**60,800**	70.5	**35,000**	74.5	**35,000**	10
12	62.0	47,200	67.5	**35,000**	72.5	**35,000**	12
15	55.5	31,200	62.5	31,800	68.5	32,200	15
20	43.5	18,300	53.5	19,000	62.0	19,600	20
25	26.5	11,800	43.5	12,500	55.0	13,000	25
30			31.0	8,500	47.5	9,100	30
35					38.5	6,400	35
40					27.5	4,500	40
Min.Boom Angle/Cap.	0 (27.5)	9,400	0 (34.5)	6,000	0 (44.5)	3,100	Min.Boom Angle/Cap.

Load Radius (Ft.)	60 Ft.		70 Ft.		80 Ft.		Load Radius (Ft.)
	∠°	360°	∠°	360°	∠°	360°	
10	77.5	**35,000**					10
12	75.5	**35,000**					12
15	72.5	32,500	75.5	32,600			15
20	67.5	19,800	71.0	20,000	74.0	20,100	20
25	62.0	13,400	66.5	13,500	70.0	13,600	25
30	56.0	9,500	62.0	9,700	66.0	9,800	30
35	50.0	6,800	57.0	7,000	62.0	7,200	35
40	43.0	4,900	51.5	5,100	57.5	5,300	40
45	35.0	3,400	46.0	3,700	53.0	3,800	45
50	24.5	2,300	39.5	2,500	48.0	2,700	50
55			32.5	1,600	43.0	1,800	55
Min.Boom Angle/Cap.	4.5 (54.4)		30.5 (56.2)		40.5 (57.2)		Min.Boom Angle/Cap.

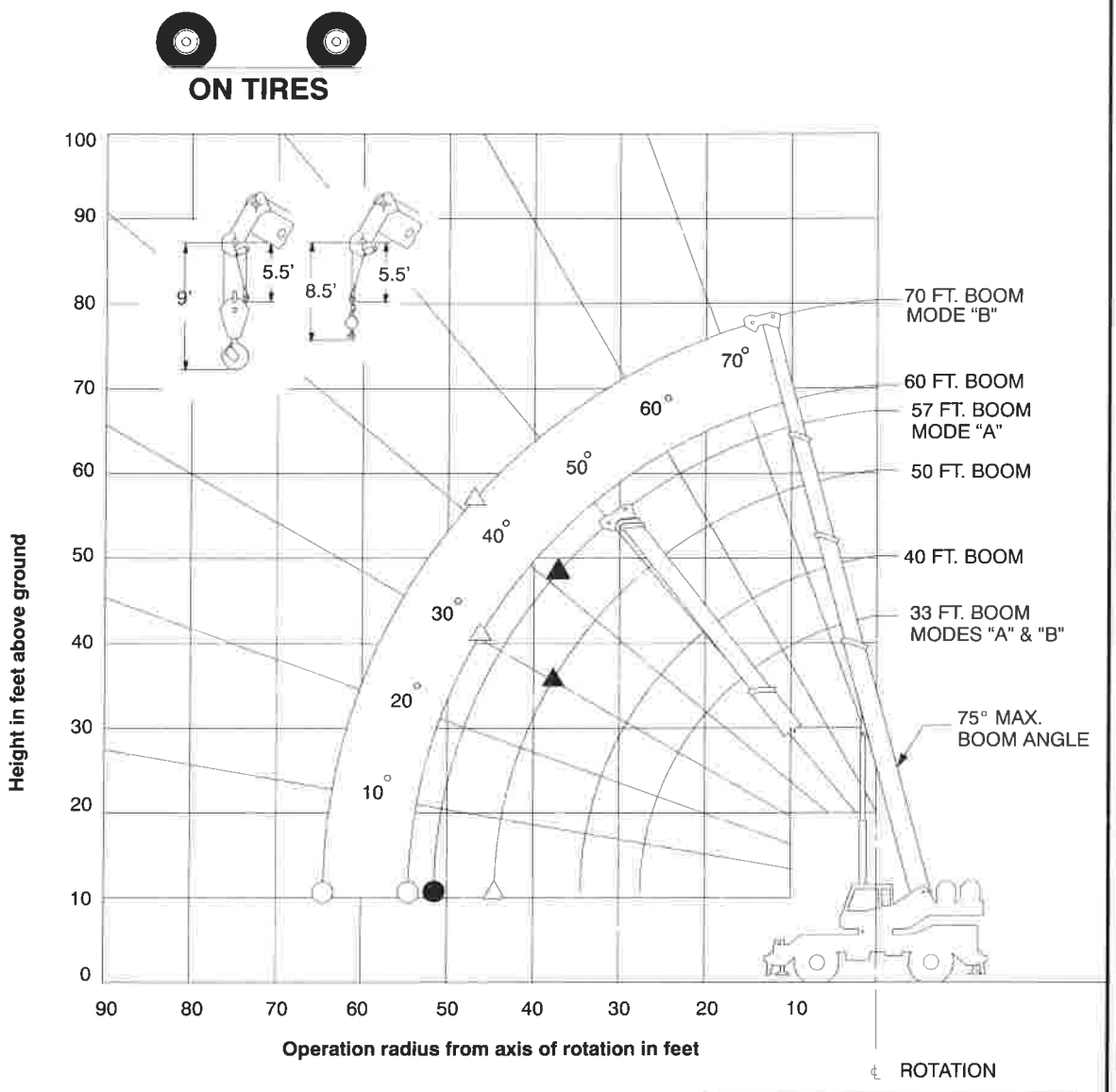
Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius for Minimum Boom Angle Capacities (Shown In Parenthesis) Are In Feet.

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WORKING RANGE DIAGRAM



Crane Configurations Prohibited:
Boom Lengths Greater than 70 FT.
28.5 FT. Offset Fly
51 FT. Offset Fly

▲ **Denotes Main Boom 360° - Boom Mode "A"**
△ **Denotes Main Boom 360° - Boom Mode "B"**
● **Denotes Main Boom Between Tire Tracks Or Centered Over Front - Boom Mode "A"**
○ **Denotes Main Boom Between Tire Tracks Or Centered Over Front - Boom Mode "B"**

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 Stability Or Raise Boom Above 75° As Shown In The Lift Charts For The Boom Lengths Given. Loss Of Stability Will Occur Causing A Tipping Condition.

On Tire Capacities In Pounds
Tire Pressure: See Page 5
Stationary Capacities
Over Front Between Tire Tracks
See Operation Note 20



ON TIRES



MAIN BOOM "A"

Load Radius (Ft.)	33 Ft.		40 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
10	66.0	**46,200**	70.5	**45,900**	10
12	62.0	**40,700**	67.5	**40,400**	12
15	55.5	**34,500**	62.5	**34,200**	15
20	43.5	**27,100**	54.0	**26,900**	20
25	26.5	20,100	43.5	19,900	25
30			31.0	14,100	30
Min.Boom Angle/Cap.	0 (27.5)	16,600	0 (34.5)	10,500	Min.Boom Angle/Cap.

Load Radius (Ft.)	50 Ft.		57 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
15	69.0	**34,000**			15
20	62.5	**26,600**	66.5	**26,500**	20
25	55.5	19,600	60.5	19,400	25
30	47.5	13,900	54.5	13,700	30
35	39.0	10,200	47.5	10,100	35
40	27.5	7,500	40.0	7,500	40
45			30.5	5,600	45
50			16.0	4,000	50
Min.Boom Angle/Cap.	0 (44.5)	5,700	0 (51.5)	3,600	Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

On Tire Capacities In Pounds
Tire Pressure: See Page 5
Stationary Capacities
Over Front Between Tire Tracks
See Operation Note 20



ON TIRES



MAIN BOOM "B"

Load Radius (Ft.)	33 Ft.		40 Ft.		50 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	∠°	Load	
10	66.0	46,200	70.5	35,000			10
12	62.0	40,700	67.5	35,000	72.5	35,000	12
15	55.5	34,500	62.5	34,900	68.5	35,000	15
20	43.5	27,100	53.5	27,500	62.0	27,900	20
25	26.5	20,100	43.5	20,800	55.0	21,200	25
30			31.0	14,800	47.5	15,400	30
35					38.5	11,600	35
40					27.5	8,900	40
Min.Boom Angle/Cap.	0 (27.5)	16,600	0 (34.5)	11,300	0 (44.5)	7,100	Min.Boom Angle/Cap.

Load Radius (Ft.)	60 Ft.		70 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
20	67.5	28,200			20
25	62.0	21,400	67.0	21,600	25
30	56.5	15,600	62.0	15,800	30
35	50.0	11,900	57.0	12,100	35
40	43.0	9,300	52.0	9,500	40
45	35.0	7,300	46.0	7,500	45
50	25.0	5,800	40.0	6,000	50
55			32.5	4,800	55
60			23.0	3,800	60
Min.Boom Angle/Cap.	0 (54.5)	4,600	0 (64.5)	3,000	Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

On Tire Capacities In Pounds
Tire Pressure: See Page 5
Pick & Carry Capacities
(1 MPH) Boom Centered Over Front
See Operation Note 20



ON TIRES



MAIN BOOM
"A"

Load Radius (Ft.)	33 Ft.		40 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
10	66.0	**43,800**	70.5	**43,500**	10
12	62.0	**38,200**	67.5	**37,900**	12
15	55.5	**31,600**	62.5	**31,400**	15
20	43.5	**24,000**	53.5	**23,800**	20
25	26.5	**18,700**	43.5	**18,500**	25
30			31.0	14,100	30
Min.Boom Angle/Cap.	0 (27.5)	**16,500**	0 (34.5)	10,500	Min.Boom Angle/Cap.

Load Radius (Ft.)	50 Ft.		57 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
15	68.5	**31,200**			15
20	62.5	**23,600**	66.5	**23,500**	20
25	55.5	**18,400**	60.5	**18,300**	25
30	47.5	13,900	54.5	13,700	30
35	39.0	10,200	47.5	10,100	35
40	27.5	7,500	40.0	7,500	40
45			30.5	5,600	45
50			16.0	4,000	50
Min.Boom Angle/Cap.	0 (44.5)	5,700	0 (51.5)	3,600	Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

On Tire Capacities In Pounds
Tire Pressure: See Page 5
Pick & Carry Capacities
(1 MPH) Boom Centered Over Front
See Operation Note 20



ON TIRES



MAIN BOOM "B"

Load Radius (Ft.)	33 Ft.		40 Ft.		50 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	∠°	Load	
10	66.0	**43,800**	70.5	**35,000**			10
12	62.0	**38,200**	67.5	**35,000**	72.5	**35,000**	12
15	55.5	**31,600**	62.5	**32,000**	68.5	**32,300**	15
20	43.5	**24,000**	53.5	**24,400**	62.0	**24,800**	20
25	26.5	**18,700**	43.5	**19,200**	55.0	**19,600**	25
30			31.0	14,800	47.5	15,400	30
35					38.5	11,600	35
40					27.5	8,900	40
Min.Boom Angle/Cap.	0 (27.5)	**16,500**	0 (34.5)	11,300	0 (44.5)	7,100	Min.Boom Angle/Cap.

Load Radius (Ft.)	60 Ft.		70 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
20	67.5	**25,000**			20
25	62.0	**19,900**	67.0	**20,000**	25
30	56.5	15,600	62.0	15,800	30
35	50.0	11,900	57.0	12,100	35
40	43.0	9,300	52.0	9,500	40
45	35.0	7,300	46.0	7,500	45
50	25.0	5,800	40.0	6,000	50
55			32.5	4,800	55
60			23.0	3,800	60
Min.Boom Angle/Cap.	0 (54.5)	4,600	0 (64.5)	3,000	Min.Boom Angle/Cap.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

On Tire Capacities In Pounds
Tire Pressure: See Page 5
Stationary Capacities - 360 Degree
See Operation Note 20



ON TIRES


MAIN BOOM
"A"

Load Radius (Ft.)	33 Ft.		40 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
10	66.0	35,900	70.5	35,600	10
12	62.0	30,100	67.5	29,800	12
15	55.5	21,500	62.5	21,200	15
20	43.5	12,800	53.5	12,700	20
25	26.5	8,200	43.5	8,100	25
30			31.0	5,200	30
Min.Boom Angle/Cap.	0 (27.5)	6,400	0 (34.5)	3,300	Min.Boom Angle/Cap.

WARNING

Do Not Raise Boom Above 75° Boom Angle. Loss Of Backward Stability Will Occur Causing a Tipping Condition.

Load Radius (Ft.)	50 Ft.		57 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
15	68.5	20,700			15
20	62.0	12,400	66.0	12,200	20
25	55.0	7,900	60.0	7,800	25
30	47.5	5,100	54.0	5,000	30
35	38.5	3,100	47.0	3,000	35
Min.Boom Angle/Cap.	30.0 (38.9)		41.5 (38.6)		Min.Boom Angle/Cap.

WARNING

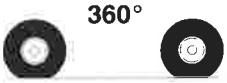
Do Not Raise Boom Above 75° Boom Angle. Loss Of Backward Stability Will Occur Causing a Tipping Condition.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

On Tire Capacities In Pounds
Tire Pressure: See Page 5
Stationary Capacities-360 Degree
See Operation Note 20



ON TIRES



MAIN BOOM "B"

Load Radius (Ft.)	33 Ft.		40 Ft.		50 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	∠°	Load	
10	66.0	**35,900**	70.5	**35,000**			10
12	62.0	**30,100**	67.5	**30,500**	72.5	**30,800**	12
15	55.5	21,500	62.5	22,000	68.5	22,400	15
20	43.5	12,800	53.5	13,400	62.0	13,900	20
25	26.5	8,200	43.5	8,800	55.0	9,300	25
30			31.0	5,900	47.5	6,400	30
35					38.5	4,400	35
40					27.0	2,900	40
Min.Boom Angle/Cap.	0 (27.5)	6,400	0 (34.5)	4,000	0 (44.5)	1,900	Min.Boom Angle/Cap.

⚠ WARNING

Do Not Raise Boom Above 75° Boom Angle. Loss Of Backward Stability Will Occur Causing a Tipping Condition.

Load Radius (Ft.)	60 Ft.		70 Ft.		Load Radius (Ft.)
	∠°	Load	∠°	Load	
20	67.0	14,000			20
25	62.0	9,600	66.5	9,700	25
30	56.0	6,700	61.5	6,900	30
35	50.0	4,700	57.0	4,900	35
40	43.0	3,200	51.5	3,400	40
45	35.0	2,200	46.0	2,400	45
Min.Boom Angle/Cap.	30.5 (47.3)		41.5 (48.4)		Min.Boom Angle/Cap.

⚠ WARNING

Do Not Raise Boom Above 75° Boom Angle. Loss Of Backward Stability Will Occur Causing a Tipping Condition.

Note: Refer To Page 8 For "Capacity Deductions For Auxiliary Load Handling Equipment".

∠° Loaded Boom Angle In Degrees.

( ) Reference Radius For Minimum Boom Angle Capacities (Shown in Parenthesis) Are In Feet.

Patents

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

United States:

4,380,244	4,491,229
4,431,109	4,547,904
4,434,902	4,728,029

Canada
Patented Brevete:

1,212,336