



# **LOAD CHARTS RT770E**

**85% STABILITY  
ON OUTRIGGERS  
75% STABILITY  
ON RUBBER**

**234366  
SERIAL NUMBER**





## TABLE OF CONTENTS

GENERAL NOTES .....	4-5
WIND REDUCTION FACTORS .....	5
LINE PULL AND REEVING INFORMATION .....	6
WEIGHT REDUCTIONS / HOIST INFO / RIGGING INFO .....	7
LIFTING AREA DIAGRAMS .....	8
RANGE DIAGRAM WITH 33-56' FOLDING EXTENSION .....	9
RANGE DIAGRAM WITH 33-56' EXTENSION + 20' INSERT .....	10

### **ON OUTRIGGERS FULLY EXTENDED**

MAIN BOOM .....	11
FOLDING EXTENSION WITH 125.1' MAIN BOOM - MODE B .....	12
FOLDING EXTENSION WITH 125.3' MAIN BOOM - MODE A .....	13
FOLDING EXTENSION WITH 137.8' MAIN BOOM - MODE A & B .....	14
FOLDING EXTENSION + 20' INSERT .....	15

### **ON OUTRIGGERS 50% EXTENDED**

MAIN BOOM .....	17
FOLDING EXTENSION WITH 125.1' MAIN BOOM - MODE B .....	18
FOLDING EXTENSION WITH 125.3' MAIN BOOM - MODE A .....	19
FOLDING EXTENSION WITH 137.8' MAIN BOOM - MODE A & B .....	20
FOLDING EXTENSION + 20' INSERT .....	N/A

### **ON OUTRIGGERS 0% EXTENDED**

MAIN BOOM .....	21
-----------------	----

### **ON RUBBER .....**

TIRE INFLATION .....	24
----------------------	----





## NOTES FOR LIFTING CAPACITIES

### GENERAL:

1. Rated loads as shown on lift chart pertain to this machine as originally manufactured and equipped. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance of this machine shall be in compliance with the information in the Operator's and Safety Handbook, Service Manual, and Parts Manual supplied with this machine. If these manuals are missing, order replacements from the manufacturer through the distributor.
3. The operator and other personnel associated with machine shall fully acquaint themselves with the latest American National Safety Standards (ASME/ANSI) for cranes.

### SETUP:

1. The machine shall be level and on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.
2. For outrigger operation, all outriggers shall be properly extended with tires raised free of crane weight before operating the boom or lifting loads.
3. When machine is equipped with center front stabilizer, the front stabilizer shall be set in accordance with instructions in Operator's & Safety Handbook.
4. When equipped with removable and/or extendible counterweight, the proper counterweight shall be installed and fully extended before and during operation.
5. Tires shall be inflated to the recommended pressure before lifting on rubber.
6. With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
7. Unless approved by the crane manufacturer, do not travel with boom extension or jib erected. Refer to Operator's and Safety Handbook for job-site travel information.

### OPERATION:

1. Rated loads at rated radius shall not be exceeded. Do not attempt to tip the machine to determine allowable loads. For clamshell, grapple, magnet or concrete bucket operation, weight of component and load must not exceed 80% of rated lifting capacities.
2. All rated loads have been tested to and meet the requirements of SAE J1063 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load on outriggers fully extended. Capacities on outriggers 50% extended and 0% extended (fully retracted) correspond to SAE J1289 (Test Load =  $1.25P + 0.1A$ ). 0.1A represents one-tenth (0.10) of the total boom weight reduced to the boom point. Loads are also determined by SAE J765 Crane Stability Test Code.
3. Rated loads include the weight of hookblock, slings and auxiliary lifting devices and their weights shall be subtracted from the listed rating to obtain the net load to be lifted. When more than the minimum required parts of line needed to pick the load are used, the additional rope weight as measured from the lower sheaves of the the main boom nose shall be considered part of the load to be lifted. When both the hook block and headache ball are reeved, the lifting device that is NOT in use, including the line as measured from the lower sheave(s) of the nose supporting the unused device shall be considered part of the load.
4. Load ratings are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
5. The "maximum permissible wind speed" referenced in the capacity charts is the "3-second wind gust speed" measured at the boom tip height. These permissible wind speeds are based on the "wind resistance area of load" equal to 0.0059 square feet per pound of load. For larger "wind resistance area of load" refer to Operator's Manual for allowable reduced wind speeds. The maximum permissible in-service wind speed is 30 mph. Only with main boom on fully extended outriggers, lifting the load is allowed at appropriately reduced capacity when the wind speed is greater than 30 mph and less than or equal to 45 mph. Refer to Capacity Reduction Factors on page 5. For machines not in-service, the main boom should be retracted and lowered with the swing brake set when wind speeds (3-second gust speed at boom tip height) exceed 45 mph.
6. Rated loads are for lift crane service only.
7. Do not operate at a radius or boom length where capacities are not listed. At these positions, the machine may overturn without any load on the hook.
8. The maximum load which can be telescoped is not definable because of variations in loadings and crane maintenance, but it is safe to attempt retraction and extension of the boom within the limits of the capacity chart.
9. When the boom length or lift radius or both are between values listed, the smallest load shown at either the next larger radius or next longer or shorter boom length shall be used.
10. For safe operation, the user shall make due allowances for his particular job conditions, such as: soft or uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or sudden stopping of loads, experience of personnel, two machine (tandem) lifts, traveling with loads, electric wires, obstacles, hazardous conditions, etc. Side pull on boom or jib is extremely dangerous.
11. Regardless of counterweight and outrigger spread configuration, no deduct is required from the main boom charts for a stowed boom extension.
12. Never handle personnel with this machine unless the requirements of the applicable national, state, and local regulations and safety codes are met.
13. Keep load handling devices a minimum of 42 inches below boom head at all times.
14. The boom angle before loading should be greater than the loaded boom angle to account for deflection.
15. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.





## NOTES FOR LIFTING CAPACITIES (cont'd.)

16. Capacities for the 36.3 ft. boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 48.9 ft. (mode B) or 49.1 ft. (mode A) boom length.
17. When operating in the "On Outriggers 50% Extended (17' spread)" mode, the outrigger beam pins must be engaged. When operating in the "On Outriggers 0% Extended (10' spread)" mode, the outrigger beams must be fully retracted. Failure to follow these precautions could result in structural damage or loss of stability of the machine.
18. Do not lift loads when boom is fully lowered. The Rated Capacity Limiter (RCL) senses pressure and will not provide warnings or lockout. The crane can become overloaded if lift cylinder(s) is fully retracted.
19. **WARNING:** Lifting with the 33 ft. extension base, with the 23 ft. extension fly either erected or folded along side of extension base, is strictly prohibited.
20. The maximum outrigger pad load is 93,800 lb.

### DEFINITIONS:

1. **Operating 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** (Shown in Parenthesis on Main Boom Capacity Chart): is the angle between the boom base section and the horizontal, after lifting the rated load at the rated radius with the rated boom length.
3. **Working Area:** Areas 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 lift cable.
5. **Side Load:** Horizontal force applied to the lifted load either on the ground or in the air.

## CAPACITY REDUCTION FACTORS FOR WIND SPEED, $V(z)$ , GREATER THAN 30 mph (Only for lifting with Main Boom on Fully Extended Outriggers, with or without Stowed Extension)

For wind speed (3-second gust speed at boom tip height),  $V(z) > 30 \text{ mph} \leq 45 \text{ mph}$ , the *Reduced Capacity* shall be calculated by multiplying the *Published Rated Capacity* by the following factors:

$V(z) > 30 \text{ mph}$ $\leq 45 \text{ mph}$	Main Boom Length in Feet															
	36.3	48.9	49.1	61.4	61.8	74.1	74.5	86.9	87.3	99.6	100.0	112.3	112.7	125.1	125.3	137.8
Factor	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.8	0.6	0.7	0.5	0.6	0.5

Wind Resistance Area of Load,  $A_{wr}(\text{load})$ , shall not exceed Maximum Allowable Wind Resistance Area,  $A_{wr}(\text{allow})$ .

Maximum Allowable Wind Resistance Area in  $\text{ft}^2$ ,  $A_{wr}(\text{allow}) = 0.0059 \times \text{Calculated Reduced Capacity in lb.}$

Wind Resistance Area of load,  $A_{wr}(\text{load}) = \text{Projected Wind Area } (A_p) \times \text{Wind Drag Coefficient } (C_d) \text{ for the load.}$

For Wind Resistance Area of load,  $A_{wr}(\text{load}) > \text{Maximum Allowable Wind Resistance Area, } A_{wr}(\text{allow})$  refer to guidance in the Crane Operator's Manual.



## CAPACITY REDUCTIONS FOR SYNTHETIC ROPE USE:

If only synthetic rope is installed on the hoist(s), the following capacity reductions apply:

	Main boom charts	Extension charts
Outriggers fully extended	150 lb	0 lb
Outriggers 50% extended	710 lb	120 lb
Outriggers 0% extended	740 lb	N/A
Rubber	180 lb	N/A

If synthetic rope is installed on either the main or aux hoist, and wire rope is installed on the other hoist, no capacity reductions are required.

## LINE PULLS AND REEVING INFORMATION

HOISTS	CABLE SPECS.	PERMISSIBLE LINE PULLS	NOMINAL CABLE LENGTH
Main	3/4" (19 mm) 6x37 Class EIPS, IWRC Special Flexible Min. breaking strength 58,800 lb	16,800 lb*	650 ft.
Main	3/4" (19 mm) 35x7 Class Rotation Resistant (non-rotating) Min. breaking strength 85,800 lb	16,800 lb*	653 ft.
Main	22 mm Synthetic K-100 Hoist Rope (ISO) Min. breaking strength 84,000 lb	16,800 lb*	673 ft.
Auxiliary	3/4" (19 mm) 35x7 Class Rotation Resistant (non-rotating) Min. breaking strength 85,800 lb	16,800 lb*	502 ft.
Auxiliary	22 mm Synthetic K-100 Hoist Rope (ISO) Min. breaking strength 84,000 lb	16,800 lb*	522 ft.

The approximate weight of 3/4" wire rope is 1.5 lb/ft.

The approximate weight of 22 mm synthetic rope is 0.21 lb/ft.

\* With certain boom and hoist tackle combinations, the allowable line pull may be limited by hoist performance. Refer to Hoist Performance table for lift planning to ensure adequate hoist performance on drum rope layer required.



## WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

33 FT. - 56 FT. FOLDING BOOM EXTENSION		
	Without block or ball	With 355 lb overhaul ball
*33 ft. Extension (erected) -	4,230 lb	5,940 lb
*56 ft. Extension (erected) -	9,280 lb	12,100 lb
FOLDING EXT. WITH 20 FT. INSERT		
*56 ft. Extension (erected) -	10,170 lb	12,260 lb

\*Reduction of main boom capacities  
(no deduct required for stowed boom extension)

AUXILIARY BOOM NOSE	130 lb
HOOKBLOCKS and OVERHAUL WEIGHTS:	
66 USt, 5 sheave	1281 lb+
50 USt, 3 sheave	992 lb+
40 USt, 3 sheave	1071 lb+
29 USt, 1 sheave	712 lb+
10 USt overhaul weight	434 lb+
8.3 USt overhaul ball	366 lb+

+Refer to rating plate for actual weight.

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

**NOTE:** All load handling devices and boom attachments are considered part of the load and suitable allowances **MUST BE MADE** for their combined weights. Weights are for Grove furnished equipment.

**NOTE:** When operating at temperatures below -40°F, capacities shall be derated 3.6% of rated load for each degree Fahrenheit below -40°F without shock load.

## HOIST PERFORMANCE

Wire Rope Layer	Hoist Line Pulls		Drum Rope Capacity (ft.)	
	Two Speed Hoist			
	Low	High	Layer	Total
	Available lb*	Available lb*		
1	18,134	9,067	101	101
2	16,668	8,334	110	211
3	15,420	7,710	120	331
4	14,347	7,174	129	460
5	13,413	6,707	139	599
6	12,594	6,297	149	748

\*Max. lifting capacity for all ropes = 16,800 lb

Synthetic rope layer height may vary and may reduce available line pull per layer.

RT770E - S/N 234366

## RIGGING CHART

### INSTALLATION AND REMOVAL OF HYDRAULIC REMOVABLE CWT

ON O/R'S FULLY EXTENDED - 360°

Radius in Feet	#0801	
	Main Boom Length in Feet	
	*36.3	49.1
Tele 1	0%	0%
Tele 2	0%	17%
Tele 3	0%	17%
Tele 4	0%	17%
Mode	A, B	A
10	20,500 (69.5)	20,500 (75)
12	20,500 (66)	20,500 (73)
15	20,500 (60.5)	20,500 (69)
20	20,500 (50)	20,500 (62.5)
25	20,500 (37.5)	20,500 (55.5)
30	20,500 (16)	20,500 (47.5)
35		20,500 (38)

NOTE: ( ) Boom angles are in degrees.

#RCLoperating code. Refer to RCL manual for operating instructions.

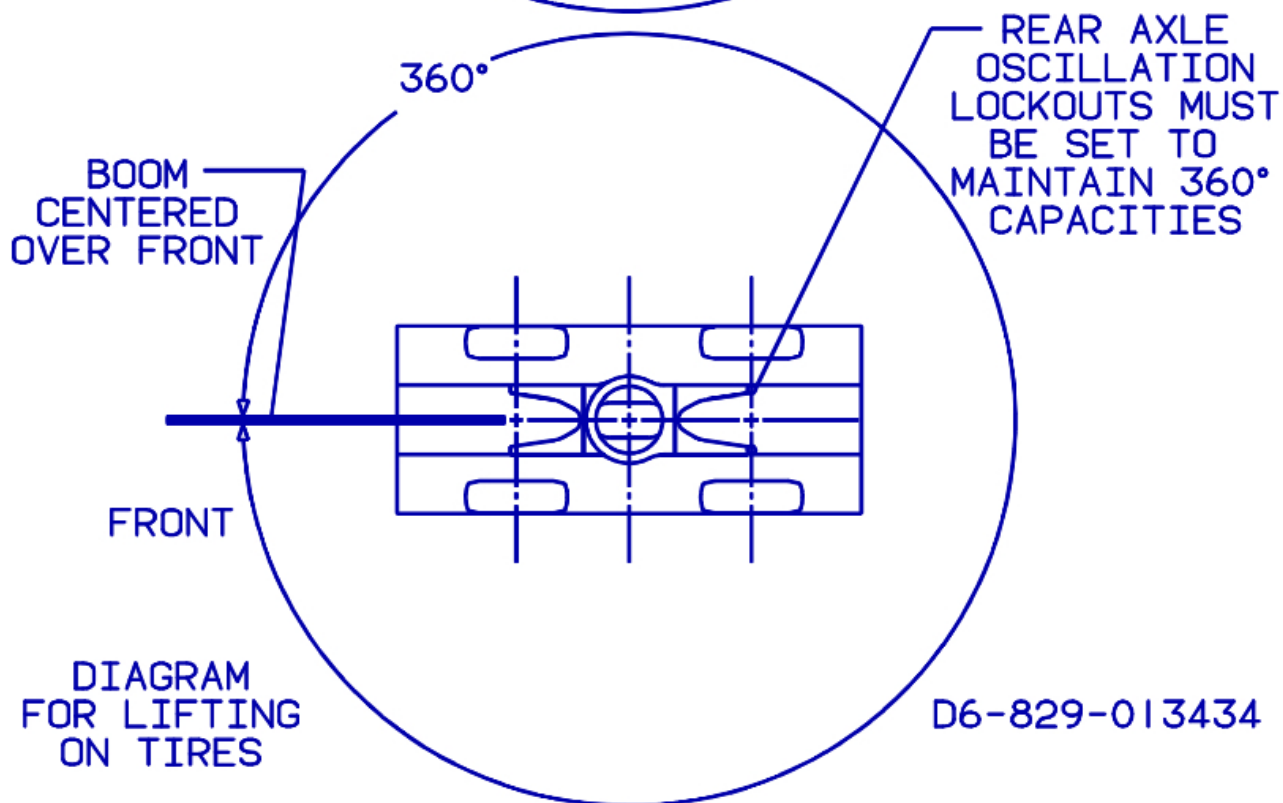
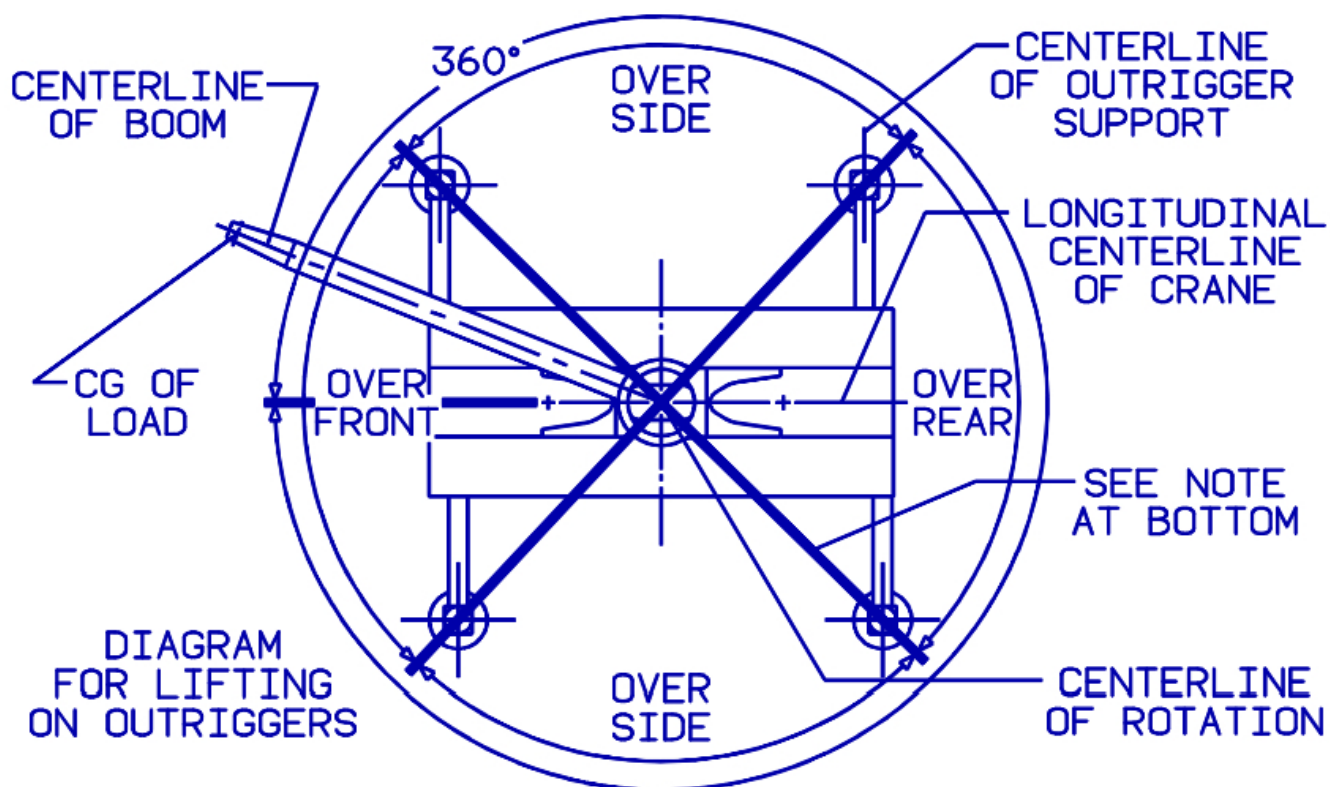
Boom Angle	Main Boom Length in Feet	
	*36.3	
0°	20,500 (30.5)	

80051952

NOTE: ( ) Reference radii in feet.

\*Boom must be fully retracted.





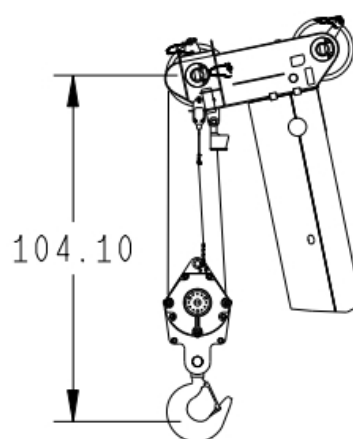
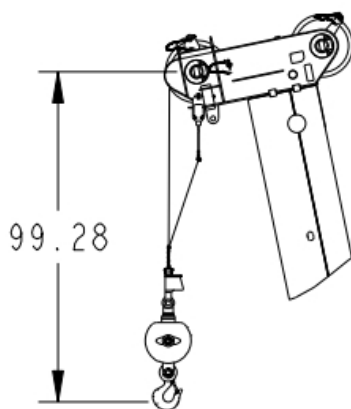
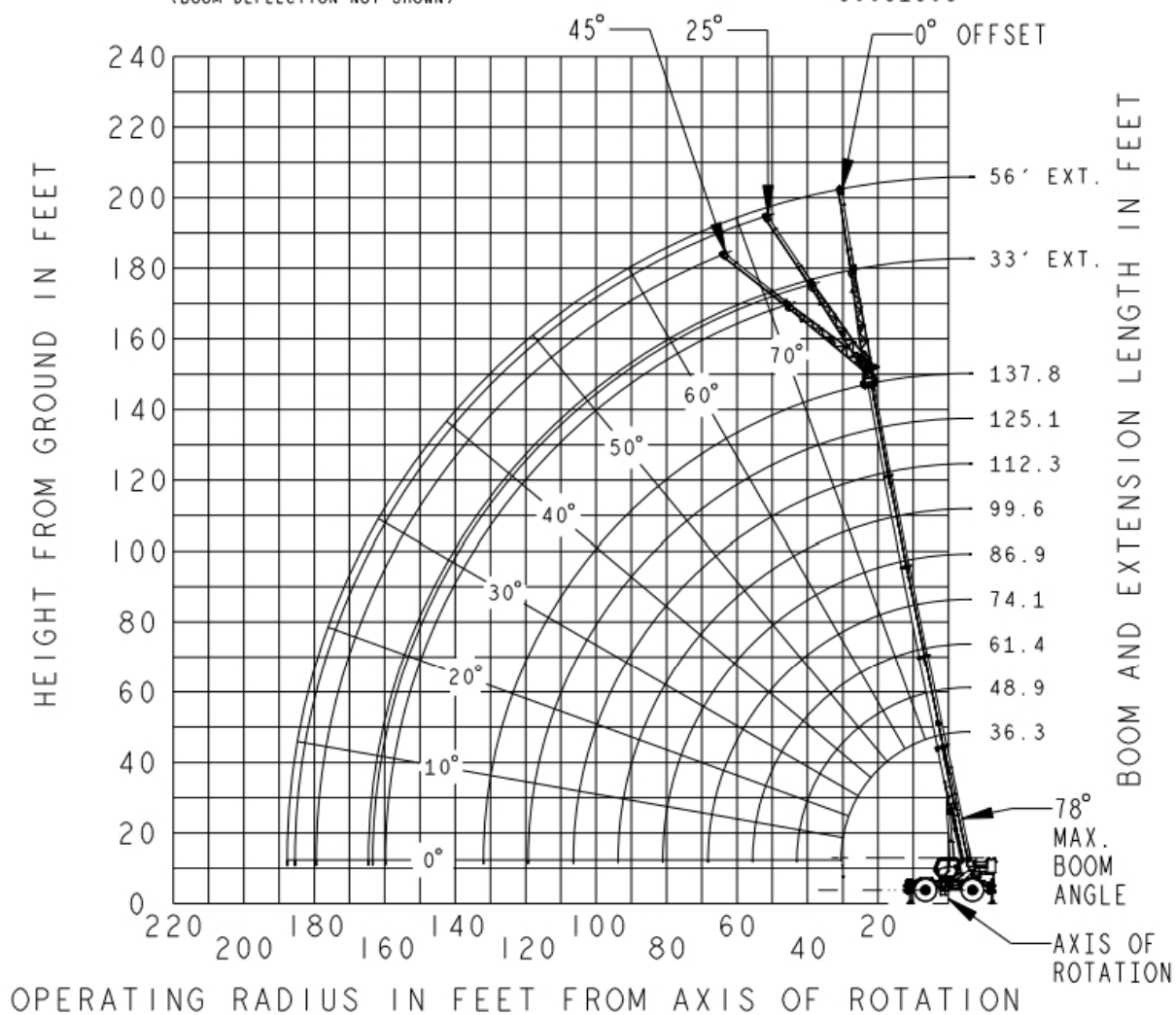
D6-829-013434

BOLD LINES DETERMINE THE LIMITING POSITION OF ANY  
LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED  
WORKING AREA DIAGRAM

## WORKING RANGE DIAGRAM WITH BI-FOLD EXTENSION

(BOOM DEFLECTION NOT SHOWN)

80051595

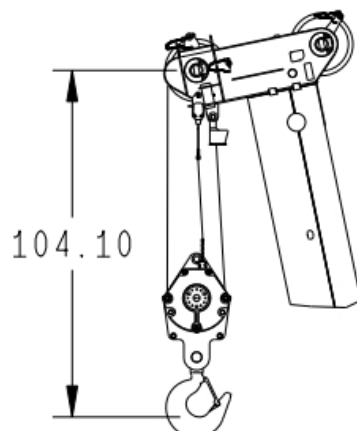
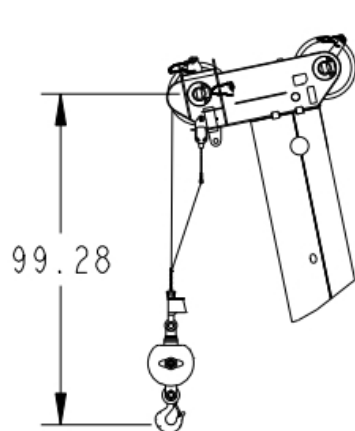
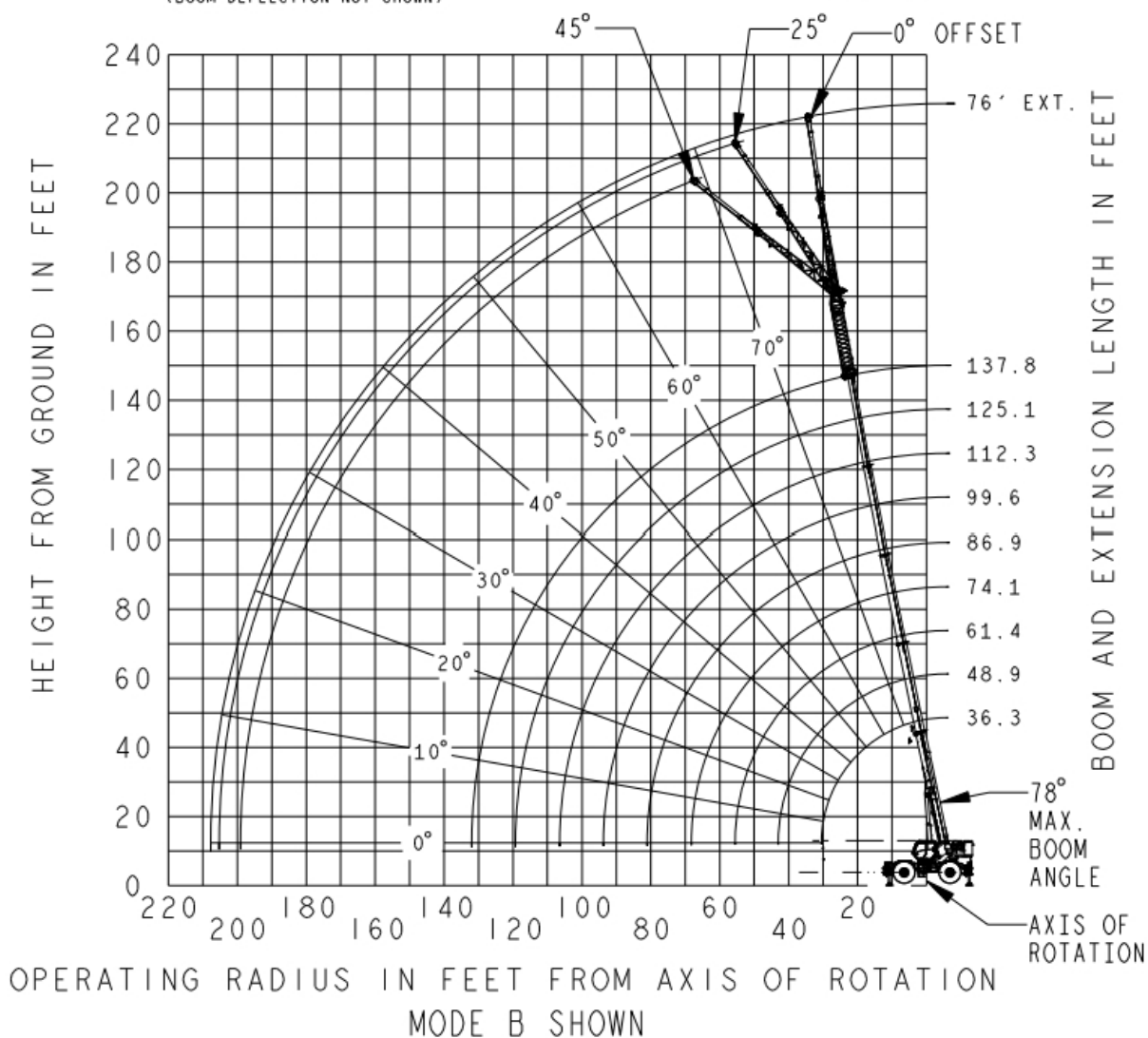


DIMENSIONS ARE FOR LARGEST GROVE FURNISHED HOOK BLOCK AND OVERHAUL BALL, WITH ANTI-TWO BLOCK ACTIVATED.

## WORKING RANGE DIAGRAM WITH BI-FOLD EXTENSION

80051596

(BOOM DEFLECTION NOT SHOWN)



DIMENSIONS ARE FOR LARGEST GROVE FURNISHED HOOK BLOCK AND OVERHAUL BALL, WITH ANTI-TWO BLOCK ACTIVATED.



**RATED LIFTING CAPACITIES IN POUNDS  
ON OUTRIGGERS FULLY EXTENDED - 360°**

Radius in feet	Main boom length in feet - RCL code #0001															
	36.3	48.9	49.1	61.4	61.8	74.1	74.5	86.9	87.3	99.6	100.0	112.3	112.7	125.1	125.3	137.8
Tele 1	0%	50%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	50%	100%
Tele 2	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Tele 3	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Tele 4	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Mode	A, B	B	A	B	A	B	A	B	A	B	A	B	A	B	A	A, B
9	140,000 (71)															
10	130,000 (69.5)	91,650 (75.5)	50,000 (75)		*49,900 (78)											
12	112,500 (66)	91,650 (73)	50,000 (73)	72,350 (78)	49,900 (76.5)											
15	93,250 (60.5)	91,100 (69)	50,000 (69)	72,350 (74)	49,900 (73.5)	*50,000 (78)	41,650 (78)									
20	71,550 (50)	69,500 (62.5)	50,000 (62.5)	66,300 (69)	49,900 (68.5)	50,000 (73)	41,650 (73)	49,850 (78)	29,750 (75.5)	*39,250 (78)	*25,800 (78)					
25	56,650 (37.5)	54,900 (55.5)	50,000 (55.5)	54,350 (63.5)	49,750 (63.5)	50,000 (69)	41,650 (68.5)	44,250 (72.5)	29,750 (72.5)	39,250 (75.5)	25,800 (75)	*29,550 (78)	*21,900 (78)	*22,600 (78)		
30	43,700 (16)	42,650 (47.5)	45,550 (47.5)	41,900 (58)	44,950 (58)	43,300 (64.5)	36,550 (64.5)	38,100 (69)	28,050 (68.5)	34,400 (72.5)	24,850 (72)	29,550 (75)	21,900 (74.5)	22,600 (77)	*21,750 (78)	*18,600 (78)
35		33,700 (38)	36,600 (38)	32,250 (52)	37,800 (52)	33,700 (60)	32,450 (60)	33,150 (65.5)	24,950 (65)	30,050 (69)	22,150 (69)	27,600 (72.5)	19,950 (71.5)	22,600 (74.5)	20,900 (74)	18,600 (76)
40		26,050 (25)	28,700 (25.5)	24,950 (45.5)	29,750 (46)	26,250 (55.5)	29,150 (55.5)	27,200 (61.5)	22,450 (61.5)	26,450 (66)	19,900 (65.5)	24,400 (69.5)	17,950 (69)	22,350 (72)	19,000 (71.5)	18,300 (74)
45				19,650 (38)	24,050 (38.5)	20,750 (50.5)	24,900 (50.5)	21,850 (58)	20,350 (57.5)	22,800 (63)	18,050 (62.5)	21,700 (66.5)	16,300 (66)	20,300 (69.5)	17,350 (69)	18,050 (72)
50				15,500 (28.5)	19,800 (29)	16,700 (45)	20,700 (45)	17,900 (53.5)	18,500 (53.5)	18,750 (59.5)	16,350 (59)	19,400 (64)	14,800 (63.5)	18,200 (67)	15,950 (66.5)	16,700 (69.5)
55				12,200 (12)	16,450 (14)	13,600 (38.5)	17,400 (39)	14,850 (49.5)	16,800 (49.5)	15,600 (56)	14,800 (55.5)	16,300 (61)	13,350 (60.5)	16,350 (64.5)	14,650 (64)	15,500 (67.5)
60						11,100 (31)	14,800 (31.5)	12,450 (44.5)	15,350 (45)	13,100 (52)	13,450 (52)	13,750 (57.5)	12,150 (57.5)	14,200 (62)	13,400 (61.5)	14,000 (65)
65						9,070 (21)	12,650 (22)	10,500 (39)	13,550 (39.5)	11,050 (48.5)	12,300 (48.5)	11,650 (54.5)	11,050 (54.5)	12,150 (59)	12,250 (59)	12,600 (62.5)
70								8,870 (33)	11,750 (33.5)	9,420 (44)	11,300 (44.5)	9,950 (51)	10,100 (51)	10,400 (56.5)	11,250 (56)	10,850 (60.5)
75								7,450 (25.5)	10,250 (26)	8,010 (39.5)	10,350 (40)	8,500 (47.5)	9,270 (48)	8,940 (53.5)	10,000 (53.5)	9,390 (58)
80								6,190 (13)	8,950 (14.5)	6,800 (34)	9,130 (34.5)	7,250 (44)	8,530 (44)	7,690 (50.5)	8,760 (50.5)	8,130 (55.5)
85										5,720 (28)	8,050 (28.5)	6,180 (39.5)	7,860 (40)	6,610 (47)	7,690 (47)	7,050 (52.5)
90										4,760 (19.5)	7,100 (20.5)	5,240 (35)	7,250 (35.5)	5,670 (44)	6,750 (44)	6,100 (50)
95												4,400 (30)	6,530 (30.5)	4,840 (40)	5,930 (40.5)	5,270 (47)
100												3,640 (23.5)	5,820 (24)	4,110 (36)	5,200 (36)	4,530 (43.5)
105												2,970 (13)	5,160 (14.5)	3,440 (31.5)	4,530 (31.5)	3,870 (40.5)
110														2,830 (26)	3,920 (26.5)	3,250 (36.5)
115														2,280 (19)	3,370 (19)	2,690 (32.5)
120																2,170 (28)
125																1,700 (22)
130																1,270 (13.5)
Minimum boom angle (°) for indicated length (no load)																0
Maximum boom length (ft.) at 0° boom angle (no load) - Mode A																137.8
Maximum boom length (ft.) at 0° boom angle (no load) - Mode B																137.8

NOTE: ( ) Boom angles are in degrees.

\*This capacity is based on maximum boom angle

#RCL operating code. Refer to RCL manual for operating instructions.

NOTE: For allowable capacities while operating in 3-second wind gust speeds greater than 30 mph and up to 45 mph, refer to *Capacity Reduction Factors for wind speed (3-second gust speed) V(z) greater than 30 mph.*

Boom angle	Lifting capacities at 0° boom angle															
	36.3	48.9	49.1	61.4	61.8	74.1	74.5	86.9	87.3	99.6	100.0	112.3	112.7	125.1	125.3	137.8
0°	30,400 (30.5)	18,500 (43.1)	20,600 (43.2)	11,850 (55.6)	15,450 (56)	7,890 (68.3)	11,300 (68.7)	5,950 (81)	8,610 (81.4)	4,110 (93.8)	6,390 (94.2)	2,780 (106.5)	4,920 (106.9)	1,850 (119.2)	2,920 (119.4)	1,110 (132)

NOTE: ( ) Reference radii in feet.

80051692

RT770E - S/N 234366

11



## 33 - 56 FT. FOLDING BOOM EXTENSION WITH 125.1 FT. MAIN BOOM - MODE B ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#0021	#0022	#0023	#0041	#0042	#0043
30	*10,850 (78)					
35	10,850 (77.5)					
40	10,850 (76)			6,130 (78)		
45	10,850 (74.5)	*10,500 (78)		6,130 (77)		
50	10,850 (72.5)	9,920 (77)	*7,290 (78)	6,130 (75.5)		
55	10,850 (71)	9,380 (75)	7,090 (77)	6,130 (74)		
60	10,850 (69)	8,890 (73)	6,930 (75)	6,130 (72.5)	*5,200 (78)	
65	10,150 (67)	8,440 (71)	6,780 (73)	6,130 (70.5)	5,060 (77.5)	
70	9,560 (65)	8,030 (69)	6,650 (71)	6,130 (69)	4,930 (75.5)	*3,810 (78)
75	9,000 (63)	7,660 (67)	6,500 (69)	6,130 (67.5)	4,800 (74)	3,720 (77.5)
80	7,990 (60.5)	7,310 (64.5)	6,390 (67)	6,020 (66)	4,680 (72)	3,620 (75.5)
85	6,930 (58.5)	7,000 (62.5)	6,290 (64.5)	5,670 (64)	4,560 (70)	3,520 (74)
90	6,000 (56)	6,710 (60)	6,200 (62)	5,360 (62.5)	4,460 (68.5)	3,440 (71.5)
95	5,180 (53.5)	6,020 (57.5)	5,980 (60)	5,070 (60.5)	4,290 (66.5)	3,400 (69.5)
100	4,460 (51)	5,180 (55)	5,180 (57.5)	4,800 (59)	4,110 (64.5)	3,310 (67.5)
105	3,810 (48.5)	4,430 (52.5)	4,480 (54.5)	4,460 (57)	3,940 (62.5)	3,270 (65)
110	3,230 (46)	3,760 (50)	3,840 (52)	3,890 (55)	3,780 (60.5)	3,230 (63)
115	2,700 (43.5)	3,150 (47)	3,260 (49)	3,370 (52.5)	3,640 (58.5)	3,190 (60.5)
120	2,230 (40.5)	2,600 (44)		2,900 (50.5)	3,500 (56)	3,160 (58)
125	1,790 (37.5)	2,100 (41)		2,470 (48)	3,170 (53.5)	3,140 (55.5)
130	1,390 (34)	1,630 (37.5)		2,070 (45.5)	2,690 (51)	3,020 (53)
135	1,030 (30)	1,210 (33.5)		1,710 (43)	2,240 (48.5)	2,520 (50)
140				1,380 (40.5)	1,830 (45.5)	
145				1,070 (37.5)	1,450 (42.5)	
150					1,100 (39.5)	
Min. boom angle for indicated length (no load)	29°	32°	48°	36°	38°	49°
Max. boom length at 0° boom angle (no load) Mode B	99.6 ft.			86.9 ft.		

NOTE: ( ) Boom angles are in degrees.

#RCL operating code. Refer to RCL manual for operating instructions.

\*This capacity is based on maximum obtainable boom angle.

80051695

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 125.1 ft. with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
4. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.
7. When lifting over the main boom nose with 33 ft. or 56 ft. extension erected, the outriggers must be fully extended or 50% extended (17' spread).





## 33 - 56 FT. FOLDING BOOM EXTENSION WITH 125.3 FT. MAIN BOOM - MODE A ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#0021	#0022	#0023	#0041	#0042	#0043
35	10,200 (78)					
40	10,200 (76)			*5,750 (78)		
45	10,200 (74.5)	*8,060 (78)		5,750 (77)		
50	9,490 (72.5)	8,050 (76.5)	*6,950 (78)	5,750 (75.5)		
55	8,770 (70.5)	7,520 (74.5)	6,950 (77.5)	5,750 (73.5)		
60	8,300 (68.5)	7,060 (72.5)	6,660 (75.5)	5,750 (72)	*4,820 (78)	
65	7,740 (66.5)	6,750 (70.5)	6,320 (73.5)	5,750 (70.5)	4,820 (77)	
70	7,250 (64.5)	6,370 (68.5)	6,020 (71)	5,480 (68.5)	4,640 (75.5)	
75	6,820 (62.5)	6,040 (66.5)	5,740 (69)	5,160 (67)	4,340 (73.5)	3,720 (78)
80	6,440 (60.5)	5,750 (64.5)	5,500 (67)	4,790 (65.5)	4,140 (72)	3,620 (76)
85	6,020 (58.5)	5,420 (62)	5,220 (64.5)	4,550 (63.5)	3,890 (70)	3,520 (74)
90	5,710 (56)	5,190 (60)	5,020 (62)	4,250 (62)	3,720 (68)	3,440 (72)
95	5,370 (54)	4,980 (57.5)	4,800 (59.5)	3,990 (60)	3,520 (66)	3,350 (70)
100	5,130 (51.5)	4,740 (55)	4,640 (57)	3,810 (58)	3,330 (64)	3,190 (68)
105	4,650 (49.5)	4,530 (52.5)	4,460 (54)	3,600 (56.5)	3,210 (62)	3,060 (65.5)
110	4,040 (46.5)	4,330 (50)	4,280 (51.5)	3,400 (54.5)	3,050 (60)	2,930 (63)
115	3,490 (44)	3,890 (47)	3,830 (48.5)	3,230 (52.5)	2,910 (58)	2,810 (60.5)
120	2,990 (41)	3,300 (44)		3,070 (50.5)	2,760 (56)	2,690 (58.5)
125	2,540 (37.5)	2,750 (41)		2,890 (48.5)	2,640 (54)	2,590 (55.5)
130	2,120 (34)	2,250 (37.5)		2,620 (46)	2,540 (51.5)	2,490 (53)
135	1,740 (30.5)	1,790 (33.5)		2,260 (43)	2,430 (49)	2,390 (50)
140	1,380 (26)	1,370 (29)		1,920 (40.5)	2,320 (46)	
145	1,060 (21)			1,610 (37.5)	2,020 (43)	
150				1,320 (34.5)	1,660 (40)	
155				1,050 (31)	1,330 (36.5)	
160					1,020 (32.5)	
Min. boom angle for indicated length (no load)	20°	28°	47°	30°	31°	49°
Max. boom length at 0° boom angle (no load) Mode A	112.7 ft.			112.7 ft.		

NOTE: ( ) Boom angles are in degrees.

80051696

#RCL operating code. Refer to RCL manual for operating instructions.

\*This capacity is based on maximum obtainable boom angle.

1. All capacities above the bold line are based on structural strength of boom extension.

2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.

3. For main boom lengths less than 125.3 ft. with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.

4. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.

6. Capacities listed are with outriggers properly extended and vertical jacks set only.

7. When lifting over the main boom nose with 33 ft. or 56 ft. extension erected, the outriggers must be fully extended or 50% extended (17' spread).





## 33 - 56 FT. FOLDING BOOM EXTENSION WITH 137.8 FT. MAIN BOOM - MODE A & B

### ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#0021	#0022	#0023	#0041	#0042	#0043
35	*8,640 (78)					
40	8,640 (77.5)					
45	8,640 (76)			*5,030 (78)		
50	8,640 (74.5)	*7,450 (78)		5,030 (77)		
55	8,640 (72.5)	7,430 (76.5)	*6,530 (78)	5,030 (75.5)		
60	8,180 (71)	7,070 (74.5)	6,530 (77.5)	5,030 (74)		
65	7,740 (69)	6,730 (73)	6,340 (75.5)	5,030 (72.5)	*4,500 (78)	
70	7,230 (67.5)	6,340 (71)	6,010 (73.5)	5,030 (70.5)	4,500 (77)	
75	6,880 (65.5)	6,070 (69)	5,790 (71.5)	5,030 (69)	4,340 (75)	*3,760 (78)
80	6,470 (63.5)	5,750 (67)	5,510 (69.5)	4,860 (67.5)	4,120 (73.5)	3,690 (77.5)
85	6,110 (61.5)	5,460 (65)	5,270 (67.5)	4,600 (66)	3,920 (72)	3,600 (76)
90	5,790 (59.5)	5,200 (63)	5,050 (65.5)	4,280 (64.5)	3,740 (70)	3,500 (74)
95	5,370 (57.5)	5,030 (61)	4,850 (63)	4,070 (63)	3,570 (68.5)	3,370 (72)
100	4,640 (55.5)	4,810 (59)	4,670 (61)	3,870 (61.5)	3,370 (66.5)	3,240 (70.5)
105	3,980 (53)	4,510 (57)	4,510 (58.5)	3,640 (60)	3,230 (65)	3,090 (68.5)
110	3,390 (51)	3,840 (55)	3,930 (56)	3,480 (58)	3,110 (63)	2,980 (66.5)
115	2,850 (48.5)	3,240 (52.5)	3,250 (53.5)	3,290 (56.5)	2,950 (61.5)	2,850 (64.5)
120	2,370 (46)	2,700 (50)	2,620 (51)	2,860 (54.5)	2,810 (59.5)	2,730 (62.5)
125	1,920 (43.5)	2,200 (47)		2,440 (52)	2,710 (57.5)	2,630 (60)
130	1,520 (40.5)	1,750 (44.5)		2,040 (50)	2,590 (55.5)	2,530 (58)
135	1,150 (38)	1,330 (41.5)		1,680 (47.5)	2,340 (53.5)	2,440 (55.5)
140				1,350 (45.5)	1,940 (51)	2,190 (53)
145				1,040 (43)	1,570 (48.5)	1,770 (50.5)
150					1,220 (46)	
Min. boom angle for indicated length (no load)	37°	38°	50°	42°	44°	49°
Max. boom length at 0° boom angle (no load) Mode B	99.6 ft.			86.9 ft.		
Max. boom length at 0° boom angle (no load) Mode A	112.7 ft.			112.7 ft.		

NOTE: ( ) Boom angles are in degrees.

#RCL operating code. Refer to RCL manual for operating instructions.

\*This capacity is based on maximum obtainable boom angle.

80051697

RT770E - S/N 234366

14



## 56' FOLDING BOOM EXT + 20' INSERT WITH 137.8' MAIN BOOM - MODE A & B ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	76 ft. LENGTH (56' ext + 20' insert)		
	0° OFFSET	25° OFFSET	45° OFFSET
	#0084	#0085	#0086
50	*3,550 (78)		
55	3,550 (77)		
60	3,550 (76)		
65	3,550 (74.5)		
70	3,550 (73)		
75	3,550 (72)	*3,390 (78)	
80	3,550 (70.5)	3,380 (77)	
85	3,440 (69)	3,160 (75.5)	*2,660 (78)
90	3,280 (68)	2,960 (74)	2,610 (77)
95	3,060 (66.5)	2,780 (72.5)	2,580 (75.5)
100	2,870 (65)	2,610 (71)	2,540 (73.5)
105	2,690 (63.5)	2,460 (69.5)	2,410 (72)
110	2,520 (62)	2,320 (67.5)	2,290 (70.5)
115	2,370 (60.5)	2,190 (66)	2,170 (68.5)
120	2,230 (59)	2,070 (64.5)	2,060 (67)
125	2,100 (57.5)	1,960 (62.5)	1,960 (65)
130	1,950 (56)	1,850 (61)	1,830 (63)
135	1,800 (54)	1,760 (59)	1,740 (61)
140	1,510 (52.5)	1,640 (57.5)	1,640 (59.5)
145	1,240 (50.5)	1,560 (55.5)	1,540 (57)
150		1,360 (53.5)	1,470 (55)
155		1,080 (51.5)	1,310 (53)
160			1,000 (50.5)
Min. boom angle for indicated length (no load)	49°	50°	49°
Max. boom length at 0° boom angle (no load) Mode B	74.1 ft.		
Max. boom length at 0° boom angle (no load) Mode A	100.0 ft.		

NOTE: ( ) Boom angles are in degrees.  
#RCL operating code. Refer to RCL manual for  
operating instructions.  
\*This capacity is based on maximum obtainable  
boom angle.

1. All capacities above the bold line are based on structural strength of boom extension.
2. The 56 ft. folding boom extension length may be used for single line lifting service only.
3. For main boom lengths less than 137.8 ft. with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
4. WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.
7. When lifting over the main boom nose with the 56 ft. extension erected and 20 ft. insert, the outriggers must be fully extended.

80051701

RT770E - S/N 234366

15







## RATED LIFTING CAPACITIES IN POUNDS ON OUTRIGGERS 50% EXTENDED (17' spread) - 360°

Radius in feet	Main boom length in feet - RCL code #4001															
	36.3	48.9	49.1	61.4	61.8	74.1	74.5	86.9	87.3	99.6	100.0	112.3	112.7	125.1	125.3	137.8
Tele 1	0%	50%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	50%	100%
Tele 2	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Tele 3	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Tele 4	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Mode	A, B	B	A	B	A	B	A	B	A	B	A	B	A	B	A	A, B
10	123,500 (69.5)	91,650 (75.5)	50,000 (75)		*49,900 (78)											
12	109,000 (66)	91,650 (73)	50,000 (73)	72,350 (78)	49,900 (76.5)											
15	91,800 (60.5)	90,900 (69)	50,000 (69)	72,350 (74)	49,900 (73.5)	*50,000 (78)	41,650 (78)									
20	60,800 (50)	55,700 (62.5)	50,000 (62.5)	51,150 (69)	49,900 (68.5)	50,000 (73)	41,650 (73)	48,650 (78)	29,750 (75.5)	*39,250 (78)	*25,800 (78)					
25	38,900 (37.5)	37,850 (55.5)	40,600 (55.5)	35,500 (63.5)	41,200 (63.5)	35,400 (69)	40,100 (68.5)	35,000 (72.5)	29,750 (72.5)	34,350 (75.5)	25,800 (75)	*29,550 (78)	*21,900 (78)	*22,600 (78)		
30	27,250 (16)	26,500 (47.5)	28,900 (47.5)	25,650 (58)	30,050 (58)	26,300 (64.5)	30,850 (64.5)	26,500 (69)	28,050 (68.5)	26,300 (72.5)	24,850 (72)	25,950 (75)	21,900 (74.5)	22,600 (77)	*21,750 (78)	*18,600 (78)
35		19,300 (38)	21,550 (38)	18,600 (52)	22,750 (52)	19,350 (60)	23,550 (60)	20,050 (65.5)	24,150 (65)	20,700 (69)	22,150 (69)	20,600 (72.5)	19,950 (71.5)	20,450 (74.5)	20,900 (74)	18,600 (76)
40		14,400 (25)	16,500 (25.5)	13,550 (45.5)	17,650 (46)	14,550 (55.5)	18,550 (55.5)	15,450 (61.5)	19,200 (61.5)	16,450 (66)	19,450 (65.5)	16,700 (69.5)	17,950 (69)	16,650 (72)	17,850 (71.5)	16,550 (74)
45				9,900 (38)	13,950 (38.5)	11,100 (50.5)	14,900 (50.5)	12,100 (58)	15,700 (57.5)	12,950 (63)	15,900 (62.5)	13,650 (66.5)	16,150 (66)	13,700 (69.5)	14,900 (69)	13,700 (72)
50				7,110 (28.5)	11,150 (29)	8,410 (45)	12,100 (45)	9,600 (53.5)	12,950 (53.5)	10,350 (59.5)	13,150 (59)	11,100 (64)	13,350 (63.5)	11,400 (67)	12,500 (66.5)	11,450 (69.5)
55				4,920 (12)	8,950 (14)	6,290 (38.5)	9,890 (39)	7,580 (49.5)	10,750 (49.5)	8,300 (56)	11,000 (55.5)	8,970 (61)	11,200 (60.5)	9,390 (64.5)	10,350 (64)	9,620 (67.5)
60						4,590 (31)	8,110 (31.5)	5,930 (44.5)	8,970 (45)	6,640 (52)	9,280 (52)	7,250 (57.5)	9,490 (57.5)	7,690 (62)	8,680 (61.5)	7,980 (65)
65						3,180 (21)	6,640 (22)	4,570 (39)	7,500 (39.5)	5,230 (48.5)	7,800 (48.5)	5,830 (54.5)	8,050 (54.5)	6,270 (59)	7,270 (59)	6,580 (62.5)
70								3,440 (33)	6,270 (33.5)	4,050 (44)	6,570 (44.5)	4,630 (51)	6,840 (51)	5,080 (56.5)	6,090 (56)	5,410 (60.5)
75								2,470 (25.5)	5,220 (26)	3,050 (39.5)	5,520 (40)	3,590 (47.5)	5,790 (48)	4,060 (53.5)	5,090 (53.5)	4,410 (58)
80								1,640 (13)	4,320 (14.5)	2,180 (34)	4,620 (34.5)	2,690 (44)	4,890 (44)	3,170 (50.5)	4,210 (50.5)	3,560 (55.5)
85										1,430 (28)	3,830 (28.5)	1,910 (39.5)	4,100 (40)	2,390 (47)	3,440 (47)	2,810 (52.5)
90											3,140 (20.5)	1,230 (35)	3,410 (35.5)	1,700 (44)	2,770 (44)	2,140 (50)
95													2,800 (30.5)	1,090 (40)	2,170 (40.5)	1,540 (47)
100													2,260 (24)		1,630 (36)	1,000 (43.5)
105													1,780 (14.5)		1,140 (31.5)	
Minimum boom angle (°) for indicated length (no load)										0		24		32	19	41
Maximum boom length (ft.) at 0° boom angle (no load) - Mode A										112.7						
Maximum boom length (ft.) at 0° boom angle (no load) - Mode B										99.6						

NOTE: ( ) Boom angles are in degrees.

\*This capacity is based on maximum boom angle

#RCL operating code. Refer to RCL manual for operating instructions.

Boom angle	Lifting capacities at 0° boom angle															
	36.3	48.9	49.1	61.4	61.8	74.1	74.5	86.9	87.3		100.0		112.7			
0°	26,350 (30.5)	12,050 (43.1)	14,000 (43.2)	4,690 (55.6)	8,570 (56)	2,380 (68.3)	5,710 (68.7)	1,480 (81)	4,080 (81.4)		2,630 (94.2)		1,610 (106.9)			

NOTE: ( ) Reference radii in feet.

80051693



## 33 - 56 FT. FOLDING BOOM EXTENSION WITH 125.1 FT. MAIN BOOM - MODE B ON OUTRIGGERS 50% EXTENDED (17' spread) - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#4021	#4022	#4023	#4041	#4042	#4043
30	*10,850 (78)					
35	10,850 (77.5)					
40	10,850 (76)			6,130 (78)		
45	10,850 (74.5)	*10,500 (78)		6,130 (77)		
50	10,850 (72.5)	9,920 (77)	*7,290 (78)	6,130 (75.5)		
55	9,340 (71)	9,380 (75)	7,090 (77)	6,130 (74)		
60	7,870 (69)	8,890 (73)	6,930 (75)	6,130 (72.5)	*5,200 (78)	
65	6,630 (67)	7,930 (71)	6,780 (73)	6,130 (70.5)	5,060 (77.5)	
70	5,470 (65)	6,640 (69)	6,650 (71)	5,900 (69)	4,930 (75.5)	*3,810 (78)
75	4,480 (63)	5,540 (67)	6,120 (69)	4,990 (67.5)	4,800 (74)	3,720 (77.5)
80	3,630 (60.5)	4,590 (64.5)	5,080 (67)	4,120 (66)	4,680 (72)	3,620 (75.5)
85	2,890 (58.5)	3,760 (62.5)	4,180 (64.5)	3,370 (64)	4,560 (70)	3,520 (74)
90	2,250 (56)	3,030 (60)	3,390 (62)	2,710 (62.5)	4,120 (68.5)	3,440 (71.5)
95	1,680 (53.5)	2,390 (57.5)	2,690 (60)	2,130 (60.5)	3,430 (66.5)	3,400 (69.5)
100	1,170 (51)	1,820 (55)	2,070 (57.5)	1,610 (59)	2,810 (64.5)	3,310 (67.5)
105		1,300 (52.5)	1,510 (54.5)	1,150 (57)	2,250 (62.5)	2,890 (65)
110			1,010 (52)		1,750 (60.5)	2,320 (63)
115					1,290 (58.5)	1,800 (60.5)
120						1,320 (58)
Min. boom angle for indicated length (no load)	49°	50°	51°	55°	56°	56°
Max. boom length at 0° boom angle (no load) Mode B	74.1 ft.			61.4 ft.		

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 125.1 ft. with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
4. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.
7. When lifting over the main boom nose with 33 ft. or 56 ft. extension erected, the outriggers must be fully extended or 50% extended (17' spread).

NOTE: ( ) Boom angles are in degrees.

80051698

#RCL operating code. Refer to RCL manual for operating instructions.

\*This capacity is based on maximum obtainable boom angle.





## 33 - 56 FT. FOLDING BOOM EXTENSION WITH 125.3 FT. MAIN BOOM - MODE A ON OUTRIGGERS 50% EXTENDED (17' spread) - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#4021	#4022	#4023	#4041	#4042	#4043
35	10,200 (78)					
40	10,200 (76)			*5,750 (78)		
45	10,200 (74.5)	*8,060 (78)		5,750 (77)		
50	9,490 (72.5)	8,050 (76.5)	*6,950 (78)	5,750 (75.5)		
55	8,770 (70.5)	7,520 (74.5)	6,950 (77.5)	5,750 (73.5)		
60	8,300 (68.5)	7,060 (72.5)	6,660 (75.5)	5,750 (72)	*4,820 (78)	
65	7,390 (66.5)	6,750 (70.5)	6,320 (73.5)	5,750 (70.5)	4,820 (77)	
70	6,210 (64.5)	6,370 (68.5)	6,020 (71)	5,480 (68.5)	4,640 (75.5)	
75	5,210 (62.5)	6,040 (66.5)	5,740 (69)	5,160 (67)	4,340 (73.5)	3,720 (78)
80	4,350 (60.5)	5,220 (64.5)	5,500 (67)	4,790 (65.5)	4,140 (72)	3,620 (76)
85	3,600 (58.5)	4,390 (62)	4,880 (64.5)	4,030 (63.5)	3,890 (70)	3,520 (74)
90	2,940 (56)	3,660 (60)	4,100 (62)	3,360 (62)	3,720 (68)	3,440 (72)
95	2,360 (54)	3,010 (57.5)	3,410 (59.5)	2,780 (60)	3,520 (66)	3,350 (70)
100	1,840 (51.5)	2,440 (55)	2,790 (57)	2,260 (58)	3,330 (64)	3,190 (68)
105	1,380 (49.5)	1,930 (52.5)	2,230 (54)	1,790 (56.5)	2,790 (62)	3,060 (65.5)
110		1,460 (50)	1,720 (51.5)	1,370 (54.5)	2,290 (60)	2,820 (63)
115		1,040 (47)	1,260 (48.5)		1,840 (58)	2,300 (60.5)
120					1,420 (56)	1,830 (58.5)
125					1,040 (54)	1,400 (55.5)
Min. boom angle for indicated length (no load)	47°	44°	47°	53°	52°	53°
Max. boom length at 0° boom angle (no load) Mode A	100.0 ft.			87.3 ft.		

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 125.3 ft. with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
4. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.
7. When lifting over the main boom nose with 33 ft. or 56 ft. extension erected, the outriggers must be fully extended or 50% extended (17' spread).

NOTE: ( ) Boom angles are in degrees.

#RCL operating code. Refer to RCL manual for operating instructions.

\*This capacity is based on maximum obtainable boom angle.

80051699





## 33 - 56 FT. FOLDING BOOM EXTENSION WITH 137.8 FT. MAIN BOOM - MODE A & B ON OUTRIGGERS 50% EXTENDED (17' spread) - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#4021	#4022	#4023	#4041	#4042	#4043
35	*8,640 (78)					
40	8,640 (77.5)					
45	8,640 (76)			*5,030 (78)		
50	8,640 (74.5)	*7,450 (78)		5,030 (77)		
55	8,640 (72.5)	7,430 (76.5)	*6,530 (78)	5,030 (75.5)		
60	7,760 (71)	7,070 (74.5)	6,530 (77.5)	5,030 (74)		
65	6,530 (69)	6,730 (73)	6,340 (75.5)	5,030 (72.5)	*4,500 (78)	
70	5,490 (67.5)	6,340 (71)	6,010 (73.5)	5,030 (70.5)	4,500 (77)	
75	4,530 (65.5)	5,610 (69)	5,790 (71.5)	4,840 (69)	4,340 (75)	*3,760 (78)
80	3,680 (63.5)	4,660 (67)	5,240 (69.5)	4,060 (67.5)	4,120 (73.5)	3,690 (77.5)
85	2,940 (61.5)	3,830 (65)	4,350 (67.5)	3,330 (66)	3,920 (72)	3,600 (76)
90	2,290 (59.5)	3,110 (63)	3,570 (65.5)	2,680 (64.5)	3,740 (70)	3,500 (74)
95	1,720 (57.5)	2,470 (61)	2,870 (63)	2,090 (63)	3,430 (68.5)	3,370 (72)
100	1,210 (55.5)	1,900 (59)	2,250 (61)	1,580 (61.5)	2,810 (66.5)	3,240 (70.5)
105		1,380 (57)	1,700 (58.5)	1,110 (60)	2,260 (65)	2,940 (68.5)
110			1,190 (56)		1,760 (63)	2,370 (66.5)
115					1,300 (61.5)	1,860 (64.5)
120						1,380 (62.5)
Min. boom angle for indicated length (no load)	53°	55°	54°	58°	60°	60°
Max. boom length at 0° boom angle (no load) Mode B	74.1 ft.			61.4 ft.		
Max. boom length at 0° boom angle (no load) Mode A	100.0 ft.			87.3 ft.		

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 137.8 ft. with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
4. **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.
7. When lifting over the main boom nose with 33 ft. or 56 ft. extension erected, the outriggers must be fully extended or 50% extended (17' spread).

NOTE: ( ) Boom angles are in degrees.

#RCL operating code. Refer to RCL manual for operating instructions.

\*This capacity is based on maximum obtainable boom angle.

80051700



## RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS 0% EXTENDED (10' spread) - 360°

Radius in feet	Main boom length in feet - RCL code #8001															
	36.3	48.9	49.1	61.4	61.8	74.1	74.5	86.9	87.3	99.6	100.0	112.3	112.7	125.1	125.3	137.8
Tele 1	0%	50%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	50%	100%
Tele 2	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Tele 3	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Tele 4	0%	0%	17%	0%	33%	17%	50%	33%	67%	50%	83%	67%	100%	83%	100%	100%
Mode	A, B	B	A	B	A	B	A	B	A	B	A	B	A	B	A	A, B
10	85,750 (69.5)	74,850 (75.5)	50,000 (75)		*49,900 (78)											
12	65,150 (66)	57,600 (73)	50,000 (73)	51,850 (78)	49,900 (76.5)											
15	46,550 (60.5)	41,700 (69)	45,300 (69)	37,800 (74)	43,450 (73.5)	*36,950 (78)	41,600 (78)									
20	29,050 (50)	26,900 (62.5)	30,150 (62.5)	24,450 (69)	29,600 (68.5)	24,550 (73)	28,800 (73)	24,350 (78)	27,950 (75.5)	*23,900 (78)	*25,800 (78)					
25	18,950 (37.5)	18,200 (55.5)	20,550 (55.5)	16,700 (63.5)	21,600 (63.5)	17,250 (69)	21,300 (68.5)	17,400 (72.5)	20,850 (72.5)	17,350 (75.5)	20,400 (75)	*17,200 (78)	*19,850 (78)	*16,950 (78)		
30	12,950 (16)	12,250 (47.5)	14,400 (47.5)	11,300 (58)	15,550 (58)	12,450 (64.5)	16,250 (64.5)	12,800 (69)	16,100 (68.5)	12,950 (72.5)	15,900 (72)	13,000 (75)	15,550 (74.5)	12,950 (77)	*14,100 (78)	*12,800 (78)
35		8,280 (38)	10,300 (38)	7,400 (52)	11,400 (52)	8,660 (60)	12,200 (60)	9,560 (65.5)	12,750 (65)	9,820 (69)	12,650 (69)	9,950 (72.5)	12,450 (71.5)	10,000 (74.5)	11,100 (74)	9,990 (76)
40		5,450 (25)	7,420 (25.5)	4,590 (45.5)	8,450 (46)	5,820 (55.5)	9,260 (55.5)	6,980 (61.5)	10,000 (61.5)	7,430 (66)	10,200 (65.5)	7,640 (69.5)	10,100 (69)	7,760 (72)	8,850 (71.5)	7,810 (74)
45				2,490 (38)	6,220 (38.5)	3,700 (50.5)	7,060 (50.5)	4,830 (58)	7,830 (57.5)	5,510 (63)	8,110 (62.5)	5,820 (66.5)	8,250 (66)	5,990 (69.5)	7,070 (69)	6,090 (72)
50					4,490 (29)	2,050 (45)	5,340 (45)	3,170 (53.5)	6,130 (53.5)	3,880 (59.5)	6,400 (59)	4,320 (64)	6,640 (63.5)	4,560 (67)	5,630 (66.5)	4,700 (69.5)
55					3,110 (14)		3,970 (39)	1,840 (49.5)	4,770 (49.5)	2,540 (56)	5,030 (55.5)	3,080 (61)	5,270 (60.5)	3,360 (64.5)	4,420 (64)	3,550 (67.5)
60							2,850 (31.5)		3,660 (45)	1,450 (52)	3,920 (52)	2,040 (57.5)	4,150 (57.5)	2,340 (62)	3,390 (61.5)	2,560 (65)
65							1,920 (22)		2,730 (39.5)		2,990 (48.5)	1,160 (54.5)	3,220 (54.5)	1,470 (59)	2,510 (59)	1,710 (62.5)
70									1,950 (33.5)		2,200 (44.5)		2,430 (51)		1,760 (56)	
75									1,280 (26)		1,530 (40)		1,750 (48)		1,110 (53.5)	
80													1,170 (44)			
Minimum boom angle (°) for indicated length (no load)				29		39		45	0	49	29	51	36	54	51	56
Maximum boom length (ft.) at 0° boom angle (no load) - Mode A				87.3												
Maximum boom length (ft.) at 0° boom angle (no load) - Mode B				48.9												

NOTE: ( ) Boom angles are in degrees.

\*This capacity is based on maximum boom angle

#RCL operating code. Refer to RCL manual for operating instructions.

Boom angle	Lifting capacities at 0° boom angle															
	36.3	48.9	49.1		61.8		74.5									
0°	12,450 (30.5)	4,070 (43.1)	5,920 (43.2)		2,870 (56)		1,320 (68.7)									

NOTE: ( ) Reference radii in feet.

80051694





## ON RUBBER CAPACITIES

### STATIONARY CAPACITIES - 360°

Radius in feet	Main boom length in feet - RCL code #9005			
	36.3	49.1	61.8	74.5
Tele 1	0%	0%	0%	0%
Tele 2	0%	17%	33%	50%
Tele 3	0%	17%	33%	50%
Tele 4	0%	17%	33%	50%
Mode	A, B	A	A	A
10	49,800 (69.5)	36,000 (75)		
12	45,650 (66)	32,550 (72.5)	32,500 (76.5)	
15	31,750 (60.5)	29,050 (68.5)	29,550 (73.5)	*27,850 (78)
20	18,750 (50)	19,950 (62)	21,050 (68.5)	21,600 (72.5)
25	12,000 (37.5)	13,350 (55)	14,500 (63.5)	14,900 (68.5)
30	7,840 (16)	9,350 (47.5)	10,400 (58)	10,850 (64.5)
35		6,620 (38)	7,590 (52)	8,010 (60)
40		4,650 (25.5)	5,560 (46)	5,950 (55.5)
45			4,030 (38.5)	4,390 (50.5)
50			2,840 (29.5)	3,160 (45)
55			1,870 (14.5)	2,180 (39)
60				1,380 (31.5)
Minimum boom angle (°) for indicated length (no load)				30
Maximum boom length (ft.) at 0° boom angle (no load)				61.8

NOTE: ( ) Boom angles are in degrees.

\*This capacity is based on maximum boom angle #RCL operating code. Refer to RCL manual for operating instructions.

Boom angle	Lifting capacities at 0° boom angle			
	36.3	49.1	61.8	
0°	7,490 (30.5)	3,630 (43.2)	1,520 (56)	

NOTE: ( ) Reference radii in feet.

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with 29.5x25 (28 or 34 ply) bias ply tires, at 65 psi cold inflation pressure.
3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
4. Capacities are applicable only with machine on firm level surface.
5. On rubber lifting with boom extension not permitted.
6. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.
7. Axle lockouts must be functioning when lifting on rubber.
8. All lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.
9. Creep - not over 200 ft. of movement in any 30 minute period and not exceeding 1 mph.

80051702A





## ON RUBBER CAPACITIES (cont'd.)

PICK & CARRY CAPACITIES (UP TO 2.5 MPH) -  
BOOM CENTERED OVER FRONT (See note 6)

Radius in feet	Main boom length in feet - RCL code #9006			
	36.3	49.1	61.8	74.5
Tele 1	0%	0%	0%	0%
Tele 2	0%	17%	33%	50%
Tele 3	0%	17%	33%	50%
Tele 4	0%	17%	33%	50%
Mode	A, B	A	A	A
10	54,800 (69.5)	35,400 (75)		
12	49,800 (66)	35,400 (72.5)	23,550 (76.5)	
15	41,300 (60.5)	35,400 (68.5)	23,550 (73.5)	*19,000 (78)
20	31,200 (50)	32,500 (62)	23,550 (68.5)	19,000 (72.5)
25	24,100 (37.5)	25,700 (55)	23,550 (63.5)	19,000 (68.5)
30	17,550 (16)	19,550 (47.5)	20,750 (58)	19,000 (64.5)
35		14,550 (38)	15,900 (52)	16,300 (60)
40		10,300 (25.5)	12,450 (46)	12,950 (55.5)
45			9,600 (38.5)	10,050 (50.5)
50			7,920 (29.5)	8,430 (45)
55			6,380 (14.5)	6,880 (39)
60				5,610 (31.5)
65				4,560 (22)
Minimum boom angle (°) for indicated length (no load)				0
Maximum boom length (ft.) at 0° boom angle (no load)				74.5

NOTE: ( ) Boom angles are in degrees.

\*This capacity is based on maximum boom angle  
#RCL operating code. Refer to RCL manual for  
operating instructions.

Boom angle	Lifting capacities at 0° boom angle			
	36.3	49.1	61.8	74.5
0°	16,950 (30.5)	8,870 (43.2)	6,110 (56)	3,890 (68.7)

NOTE: ( ) Reference radii in feet.

80051703A

RT770E - S/N 234366

23



TIRE INFLATION - PSI (BAR)		
SIZE (FRONT & REAR)	TRA CODE	LIFTING SERVICE , GENERAL TRAVEL AND EXTENDED TRAVEL
		STATIC, CREEP & 2.5 MPH (4.0 km/h)
29.5x25 (28 or 34) General/Titan, Denman Broadway / Rock Plus	E-3	65 (4.5) (See operator's manual for extended roading.)