



ROUGH TERRAIN CRANE

110 TONS

LINK-BELT RTC-80110ii

BOOM LENGTHS:
40 TO 150 FT

JIB LENGTHS:
31 TO 91 FT

JIB OFFSETS:
2 - 25 - 45



NOTES:

Technical Data

Specifications & Capacities

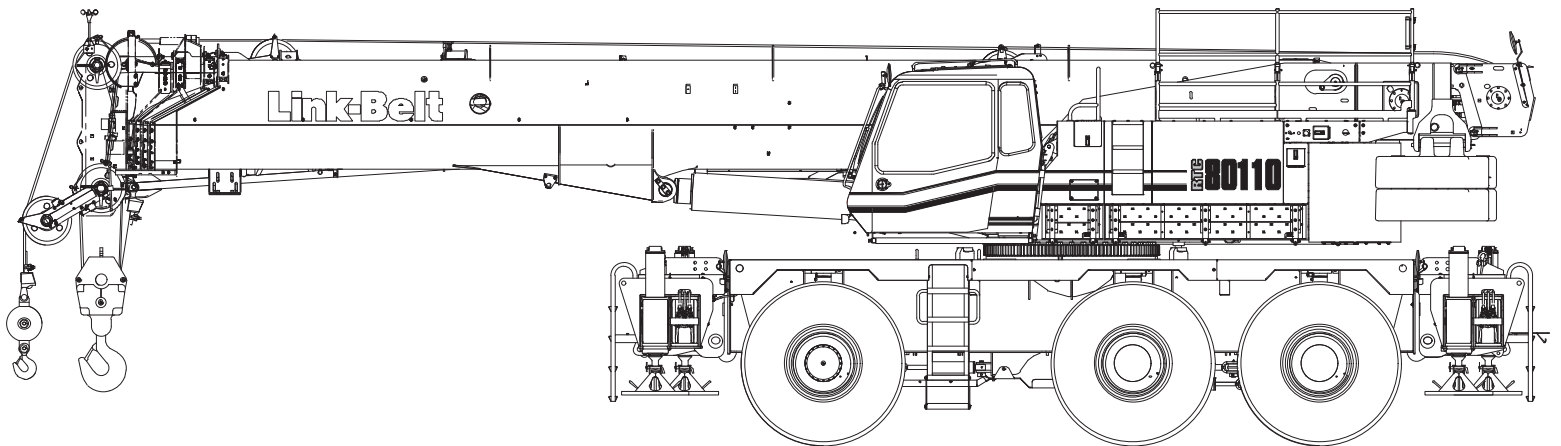
RTTG 80110

Series II

Telescopic Boom Rough Terrain Crane

110 US ton

100 metric ton



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Boom, Attachments, and Upper Structure

■ Boom

Design - Five section, formed construction of extra high tensile steel consisting of one base section and four telescoping sections. The first telescoping section extends independently by means of one, double-acting, single stage hydraulic cylinder with integral holding valves. The second telescoping section extends independently by means of one, double-acting, single stage hydraulic cylinder with integral holding valves. The third and fourth sections extend proportionally by means of one, double-acting, single stage cylinder with integrated holding valves and cables.

Boom

- 40-150 ft (12.2-45.7m) five section full power boom
- Three boom extend modes, controlled from the operator's cab, provide superior capacities by varying the extension of the telescoping sections:
 - Standard mode is the full power, synchronized mode of telescoping all sections proportionally
 - A-max¹ mode (or mode 'A1') extends only the inner and center sections to 95 ft (29m) offering increased capacities for in-close, maximum capacity picks
 - A-max² mode (or mode 'A2') tip, outer and center sections extend to 122.5 ft (37.34m) offering maximum stability
- Mechanical boom angle indicator
- Maximum tip height for each extend mode is:
 - Standard is 159 ft 6 in (48.6m)
 - A-max² is 132 ft 6 in (40.3m)
 - A-max¹ is 105 ft 6 in (32.1m)

Boom Wear Pads

- Bottom wear pads are universal for all boom sections
- Top wear pads are universal for all boom sections

Boom Head

- Six 16.38 in (41.6cm) root diameter nylon sheaves to handle up to twelve parts of line
- Easily removable wire rope guards
- Rope dead end lugs on each side of the boom head
- Boom head is designed for quick-reeve of the hook block

Boom Elevation

- One double acting hydraulic cylinder with integral holding valve
- Boom elevation: -2.5° to 80.75°

Auxiliary Lifting Sheave - Optional

- Single 16.38 in (41.6cm) root diameter nylon sheave
- Easily removable wire rope guards
- Does not affect erection of the fly or use of the main head sheaves

Hook Blocks and Balls - Optional

- 140 ton (126.98mt) 7 sheave, quick-reeve hook block, with safety latch
- 100 ton (90.72mt) 6 sheave, quick-reeve hook block, with safety latch
- 80 ton (72.57mt) 5 sheave, quick-reeve hook block with safety latch
- 50 ton (45.36mt) 4 sheave, quick-reeve hook block with safety latch
- 35 ton (31.7mt) 1 sheave, quick-reeve hook block with safety latch
- 12 ton (10.89mt) hook ball (swivel) with safety latch

Fly - Optional

- 31 ft-55 ft (9.4-16.8m) two piece bi-fold lattice fly, stowable, offsettable to 2°, 15°, 30°, and 45°. Maximum tip height is 214 ft (65.2m). Minimum of 14,000 lb (6 350kg) of counterweight required.
- 10 ft, 31 ft - 55 ft (3.0, 9.4-16.8m) three piece bi-fold lattice fly, stowable, offsettable to 2°, 15°, 30°, and 45°. Maximum tip height is 214 ft (65.2m). Minimum of 14,000 lb (6 350kg) of counterweight required.

Fly Extensions - Optional

- One 18 ft (5.5m) lattice extension, equipped with two 16.38 in (41.6cm) root diameter nylon sheaves, to be mounted between the boom head and fly options. Maximum tip height is 232 ft (70.7m). Minimum of 26,000 lb (11 794kg) of counterweight required.
- Two 18 ft (5.5m) lattice extensions, one equipped with two 16.38 in (41.6cm) root diameter nylon sheaves, to be mounted between the boom head and fly options. Maximum tip height is 250 ft (76.2m). Minimum of 26,000 lb (11 794kg) of counterweight required.

■ Operator's Cab and Controls

Environmental Cab - Fully enclosed, one person cab of galvanneal steel structure with acoustical insulation.

Equipped with:

- Tilting cab up to 20°
- Seat belt
- Tinted and tempered glass windows
- Five way adjustable, cushioned seat with headrests, and seat belt
- Extra-large fixed front window with windshield wiper and washer
- Swing up roof window with windshield wiper and washer
- Sliding left side door with large fixed window
- Sliding right side window for ventilation
- Engine dependent warm - water heater with air ducts for front windshield defroster and cab floor
- Defroster fan for the front window
- Bubble level
- Circulating fan
- Sun screen
- Dome light
- Cup holder
- Fire extinguisher
- Left side viewing mirror
- Two position travel swing lock



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Load Hoist System

Load Hoist Performance

Front and Rear Winches - 7/8 in (22mm) Rope										
Layer	Maximum Line Pull		Normal Line Speed		High Line Speed		Layer		Total	
	lb	kN	ft/min	m/min	ft/min	m/min	ft	m	ft	m
1	21,022	93.51	141	43.0	279	85.0	125	38.1	125	38.1
2	18,985	84.37	156	47.5	310	94.5	138	42.0	263	80.2
3	17,280	76.86	172	52.4	340	103.6	152	46.3	415	126.5
4	15,868	70.58	187	57.0	370	112.8	165	50.3	588	179.2
5	14,669	65.25	202	61.6	400	121.9	179	54.6	759	231.3
6	13,639	60.67	217	66.1	431	131.4	192	58.5	951	289.9

Wire Rope Application		Diameter		Type	Maximum Permissible Load	
		in	mm		lb	kg
Rear Winch	Standard	7/8	22	18x19 rotation resistant - right regular lay (Type RB)	17,520	7 946.9
	Optional	7/8	22	36x7 rotation resistant - right regular lay (Type ZB)	20,920	9 489.2
Front Winch	Standard	7/8	22	18x19 rotation resistant - right regular lay (Type RB)	17,520	7 946.9
	Optional	7/8	22	36x7 rotation resistant - right regular lay (Type ZB)	20,920	9 489.2

2M Main and Optional Auxiliary Winches

- Axial piston, full and half displacement (2-speed) motors driven through planetary reduction unit for positive control under all load conditions.
- Grooved lagging
- Power up/down mode of operation
- Hoist drum cable follower - optional
- Drum rotation indicator
- Drum diameter: 15 in (38.1cm)
- Rope length:
 - Front: 850 ft (215.9m)
 - Rear: 500 ft (127.0m)
- Maximum rope storage: 951 ft (289.9m)
- Terminator style socket and wedge

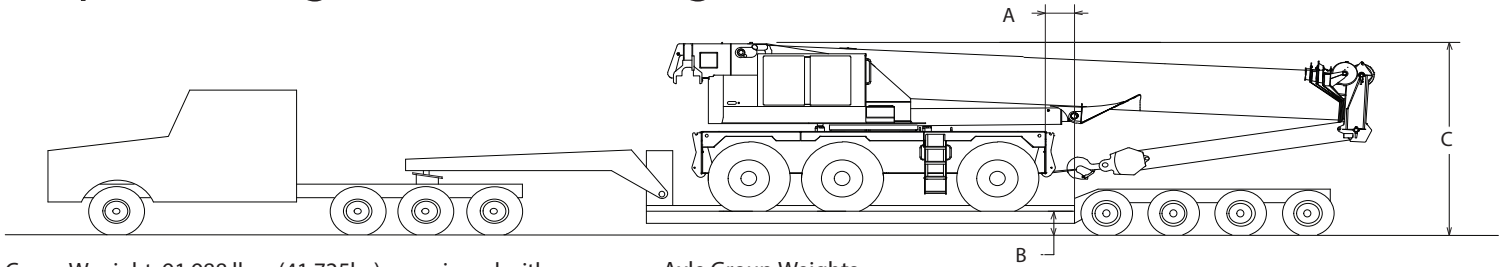
Engine

Specification	Cummins QSL	
Numbers of Cylinders	6	6
Cycle	4	4
Emissions Compliance Level:	Tier 4i/Stage IIIB ⁽¹⁾	Tier 3/Stage IIIA ⁽²⁾
Bore and Stroke: inch (mm)	4.49 x 5.69 (114 x 145)	4.49 x 5.69 (114 x 145)
Piston Displacement: in ³ (L)	543 (8.90)	543 (8.90)
Max. Brake Horsepower: hp (kW)	340 (254) @ 1,900 rpm	350 (261) @ 1,900 rpm
	320 (239) @ 2,100 rpm	325 (242) @ 2,100 rpm
Peak Torque: ft lb (Nm)	1,050 (1 424) @ 1,500 rpm	1,050 (1 424) @ 1,500 rpm
Electric/starting systems: volts	12/12	12/12
Alternator: amps	160	160
Crankcase Capacity: qt (L)	24 (22.7)	24 (22.7)
<ul style="list-style-type: none"> • Water/fuel separator w/ heater and water in fuel (WIF) sensor • 120-volt block heater-Tier 4i/Stage IIIB • 220-volt block heater-Tier 3/Stage IIIA • Grid heater - 200 amp • ⁽¹⁾ Can only be sold and/or operated where Tier 4i and Stage IIIB off-highway emission standards are accepted. • ⁽²⁾ Can only be sold and/or operated where Tier 3 and Stage IIIA off-highway emission standards are accepted. 		



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Transport Configuration and Weights



Crane Weight: 91,988 lb (41 725kg) , equipped with :

- 40-150 ft (12.19-45.72m) , five section boom
- 80 ton (72.57mt) hook block
- One winch with 850 ft (259.08m) of 7/8 in (22mm) rope
- 10-31-55 ft (3.0-9.4-16.7m) 3 piece bi-fold fly
- Winch roller
- Auxiliary arm
- Air conditioning

Drop Off Load Weight: 44,924 lb (20 377kg)

- Two outrigger boxes with tow shackles
- 24,000 lb (10 886kg) counterweight
- Rear winch with 500 ft (152.40m) of 7/8 in (22mm) rope
- Winch roller
- 12 ton (10.9mt) hook ball

Axle Group Weights

Empty Truck Wt.	Bed Length	Steer	Drivers	Trailer	A
48,500 lb (22 000kg)	25 ft (7.62m)	12,500 lb (5 670kg)	58,138 lb (26 371kg)	69,850 lb (31 683kg)	5 in (0.13m)

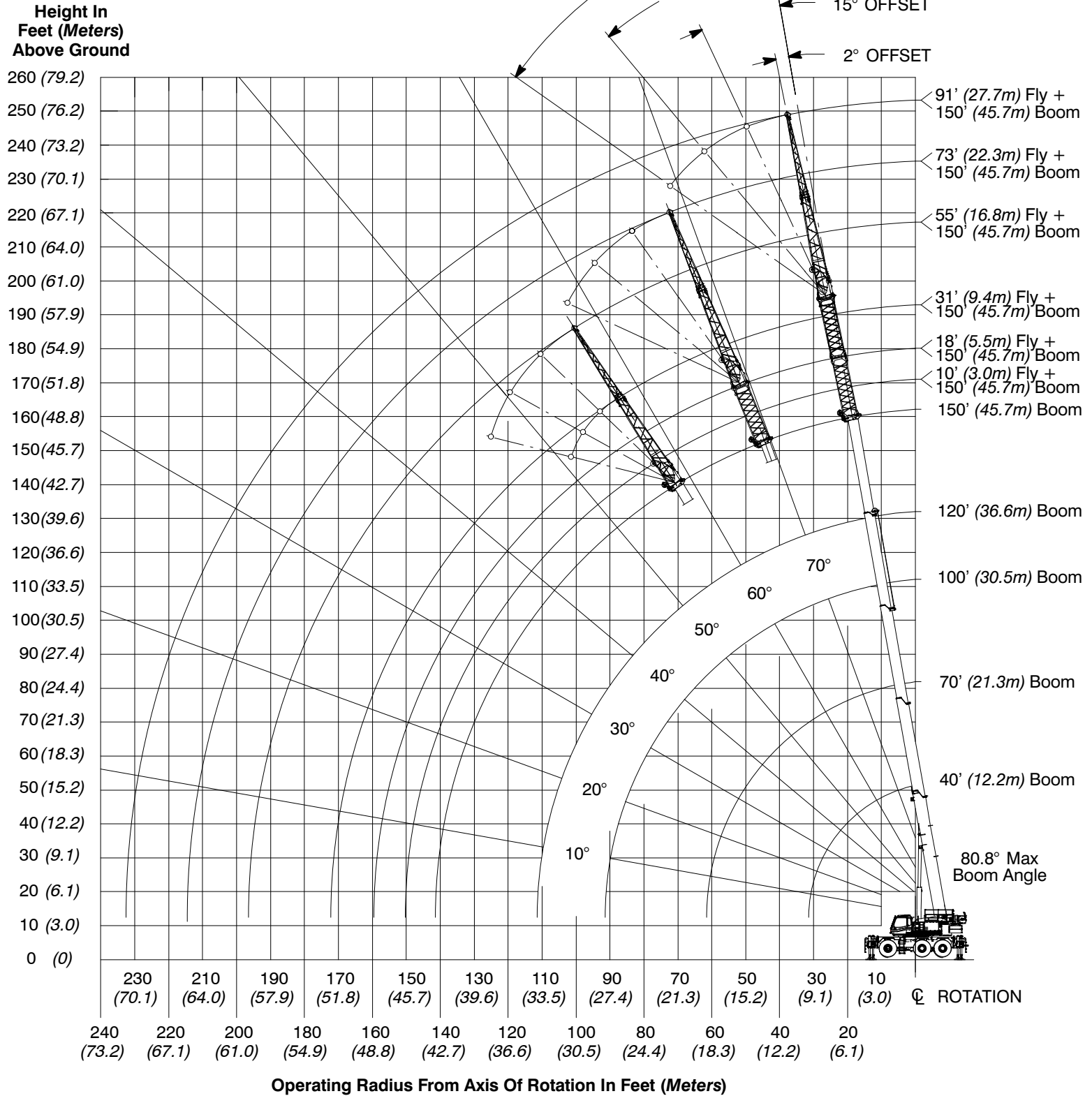
B - 18 in (0.46m) or 24 in (0.61m)

	Normal Suspension	Collapsed Suspension
C [with 18 in (0.46m) Trailer]	13 ft 8 in (4.17m)	13 ft 5 in (4.09m)
C [with 24 in (0.61m) Trailer]	14 ft 2 in (4.32m)	13 ft 11 in (4.24m)



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Working Range Diagram



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Main Boom Lift Capacity Charts - Imperial

26,000 lb Counterweight - Fully Extended Outriggers - 360° Rotation
(All Capacities Are Listed In Pounds)

Radius (ft)	Boom Length (ft)												Radius (ft)
	40	50	60	70	80	90	100	110	120	130	140	150	
10	*220,000	107,200	105,400	101,500									10
12	187,600	107,200	105,400	101,500	101,300								12
15	164,600	107,200	105,400	101,500	96,600	81,900	56,500						15
20	123,400	107,200	105,400	101,500	80,800	73,200	65,900	56,000					20
25	95,800	95,400	94,000	87,800	69,000	62,700	60,100	56,000	58,000				25
30	77,200	76,900	76,600	76,300	59,900	55,000	53,500	56,000	51,300	48,600	38,400	30,000	30
35		63,700	63,400	63,200	53,200	53,000	53,500	51,800	45,400	43,100	38,400	30,000	35
40		52,400	52,000	52,000	53,200	52,800	52,800	46,300	40,600	38,500	37,000	30,000	40
45			43,600	44,200	44,700	42,900	43,000	41,700	36,500	34,600	33,300	30,000	45
50			36,100	36,900	37,300	37,600	35,600	35,700	33,000	31,300	30,200	29,100	50
55				31,300	31,800	32,100	30,200	30,300	30,000	28,500	27,500	26,500	55
60				26,800	27,300	27,600	27,900	25,900	25,900	25,900	25,100	24,200	60
65					23,700	24,000	24,300	23,600	22,400	22,400	22,400	22,100	65
70					20,700	21,100	21,300	21,500	19,900	19,500	19,500	19,500	70
75						18,600	18,800	19,000	18,500	17,100	17,200	17,200	75
80						16,500	16,800	17,000	17,200	15,100	15,100	15,200	80
85							14,900	15,200	15,400	13,300	13,300	13,400	85
90							13,300	13,600	13,800	11,700	11,800	11,800	90
95								12,200	12,400	10,400	10,400	10,400	95
100								10,900	11,100	9,100	9,120	9,200	100
105									10,000	8,100	8,100	8,100	105
110									9,000	7,100	7,100	7,100	110
115										6,200	6,200	6,300	115
120										5,400	5,400	5,500	120
125											4,700	4,800	125
130											4,000	4,100	130
135												3,500	135
140												2,900	140

* Special conditions or optional equipment required



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26,000 lb Counterweight - Fully Extended Outriggers - 360° Rotation
 (All Capacities Are Listed In Pounds)

Radius (ft)	150 ft Main Boom Length								Radius (ft)
	31 ft Manual Offset Fly				55 ft Manual Offset Fly				
	2°	15°	30°	45°	2°	15°	30°	45°	
35	16,100								35
40	16,100								40
45	16,100	16,300			10,600				45
50	16,100	16,300			10,400				50
55	16,100	16,200	14,600		10,200	9,000			55
60	16,100	15,900	14,400	13,500	10,000	8,800			60
65	16,100	15,700	14,300	13,400	9,800	8,700			65
70	16,100	15,400	14,100	13,300	9,600	8,500	7,600		70
75	16,100	15,200	13,900	13,200	9,400	8,400	7,500		75
80	15,000	15,000	13,800	13,100	9,200	8,200	7,400	6,800	80
85	13,600	14,300	13,600	13,100	9,000	8,100	7,300	6,800	85
90	12,000	12,800	13,500	13,000	8,900	7,900	7,200	6,700	90
95	10,600	11,300	12,000	12,500	8,700	7,800	7,100	6,700	95
100	9,400	10,000	10,600	11,000	8,600	7,700	7,000	6,600	100
105	8,300	8,900	9,400	9,800	8,400	7,600	6,900	6,600	105
110	7,300	7,800	8,300	8,600	8,200	7,500	6,900	6,600	110
115	6,400	6,900	7,300	7,600	7,300	7,400	6,800	6,600	115
120	5,600	6,000	6,400	6,700	6,500	7,300	6,800	6,600	120
125	4,900	5,300	5,600	5,800	5,700	6,500	6,700	6,600	125
130	4,200	4,600	4,900	5,100	5,000	5,700	6,400	6,600	130
135	3,600	3,900	4,200	4,300	4,400	5,100	5,700	6,100	135
140	3,000	3,300	3,600		3,800	4,400	5,000	5,300	140
145	2,500	2,800	3,000		3,300	3,900	4,400	4,700	145
150	2,000	2,300	2,400		2,800	3,300	3,800	4,000	150
155	1,600	1,800	1,900		2,400	2,800	3,200	3,400	155
160	1,200	1,400			1,900	2,400	2,700	2,800	160
165					1,600	1,900	2,200	2,300	165
170					1,200	1,500	1,800		170
175							1,300		175
180									180



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26,000 lb Counterweight - Fully Extended Outriggers - 360° Rotation
 (All Capacities Are Listed In Pounds)

Radius (ft)	150 ft Main Boom Length								Radius (ft)
	73 ft Manual Offset Fly				91 ft Manual Offset Fly				
	2°	15°	30°	45°	2°	15°	30°	45°	
45	8,700								45
50	8,600								50
55	8,500				6,400				55
60	8,400				6,400				60
65	8,300	7,600			6,400				65
70	8,200	7,500			6,400	6,200			70
75	8,100	7,400			6,400	6,100			75
80	8,000	7,300	6,700		6,400	6,100			80
85	7,900	7,200	6,600		6,400	6,000	5,600		85
90	7,900	7,100	6,600	6,200	6,400	6,000	5,600		90
95	7,800	7,100	6,500	6,200	6,400	5,900	5,500	5,200	95
100	7,700	7,000	6,400	6,100	6,400	5,900	5,500	5,000	100
105	7,600	6,900	6,400	6,000	6,400	5,900	5,300	4,800	105
110	7,500	6,900	6,300	5,900	6,300	5,700	5,100	4,700	110
115	7,200	6,800	6,300	5,700	6,200	5,400	4,900	4,500	115
120	6,300	6,700	6,100	5,600	5,900	5,200	4,700	4,400	120
125	5,600	6,400	6,000	5,500	5,600	5,000	4,500	4,200	125
130	4,900	5,600	5,800	5,400	4,900	4,800	4,400	4,100	130
135	4,300	5,000	5,600	5,300	4,300	4,600	4,200	4,000	135
140	3,700	4,300	5,000	5,200	3,700	4,400	4,100	3,800	140
145	3,100	3,700	4,300	4,700	3,100	3,800	3,900	3,700	145
150	2,600	3,200	3,700	4,100	2,600	3,300	3,800	3,600	150
155	2,200	2,700	3,200	3,500	2,200	2,800	3,300	3,500	155
160	1,700	2,200	2,700	2,900	1,700	2,300	2,800	3,100	160
165	1,300	1,800	2,200	2,400	1,300	1,800	2,300	2,600	165
170		1,400	1,700	1,900		1,400	1,900	2,100	170
175			1,300	1,400			1,400	1,700	175
180							1,200		180



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