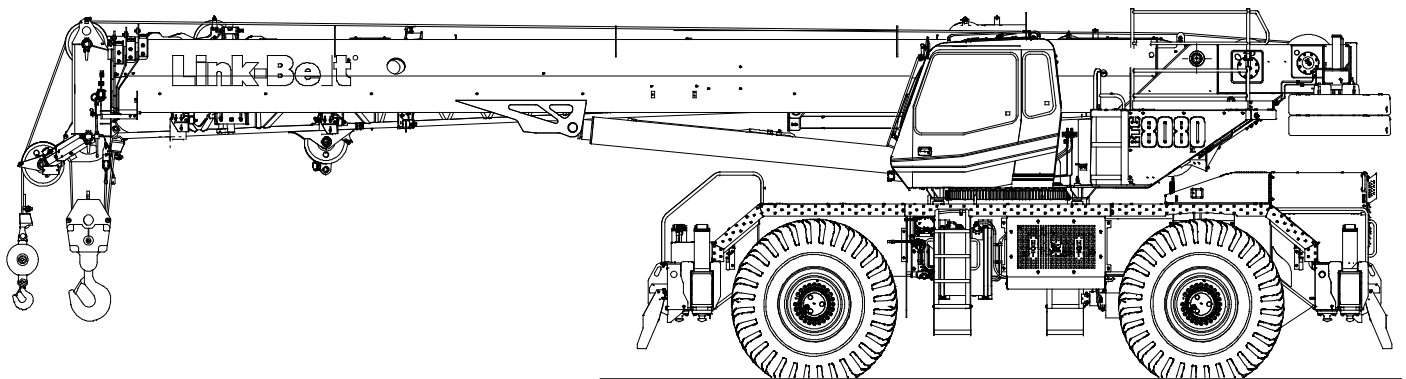


# Technical Data

## Specifications & Capacities

# RTC 8080

**Series II**  
**80 US ton**  
**80 metric ton**



**CAUTION:** This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.



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# Boom, Attachments, and Upper Structure

## ■ Boom

**Design** - Four section, formed construction of extra high tensile steel consisting of one base section and Three telescoping sections. The two plate design of each section has multiple longitudinal bends for superior strength.

### Boom

- 41 - 127 ft (12.5 - 38.7m) four section boom
- Two boom extend modes (A- max and standard), controlled from the operator's cab, provide superior capacities by varying the extension of the telescoping sections:
  - A- max extends to 69.7 ft (21.2m)
  - Standard extends to 127 ft (38.7m)
- Mechanical boom angle indicator
- Maximum tip height for each extend mode is:
  - A- max is 80.3 ft (24.5m)
  - Standard is 136.7 ft (41.7m)

### Boom Wear Pads

- Wear pads with Teflon inserts that self-lubricate the boom sections
- Bottom wear pads are universal for all boom sections, except for tip section
- Top wear pads are universal for all boom sections

### Boom Head

- Five 16.5 in (41.9cm) root diameter nylon sheaves to handle up to ten 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: - 3° to 80°

## Auxiliary Lifting Sheave - Optional

- Single 16.5 in (41.9m) 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

- 40 ton (36.3t) 4 sheave quick-reeve hook block with safety latch
- 60 ton (54.4t) 4 sheave quick-reeve hook block with safety latch
- 80 ton (72.5t) 5 sheave quick-reeve hook block with safety latch
- 8.5 ton (7.7t) swivel and non-swivel hook balls with safety latch
- 10 ton (9.1t) swivel and non-swivel hook balls with safety latch

## Fly - Optional

- 38 ft (11.6m) one piece lattice fly, stowable, offsettable to 2°, 15°, 30°, and 45°. Maximum tip height is 174.3 ft (53.1m).
- 38 - 64 ft (11.6 - 19.5m) two piece bi-fold lattice fly, stowable, offsettable to 2°, 15°, 30°, and 45°. Maximum tip height is 199.7 ft (60.9m).
- 10 - 38 - 64 ft (3.0 - 11.6 - 19.5m) three piece bi-fold lattice fly, stowable, offsettable 2°, 15°, 30°, and 45°. Maximum tip height is 199.7 ft (60.9m).

## Fly Extensions - Optional

- One 16 ft (4.9m) lattice extension, equipped with two 16.5 in (41.9cm) root diameter nylon sheaves, to be mounted between the boom head and fly options. Maximum tip height is 215.2 ft (65.6m).
- Two 16 ft (4.9m) lattice extensions, one equipped with two 16.5 in (41.9cm) root diameter nylon sheaves, to be mounted between the boom head and fly options. Maximum tip height is 230.9 ft (70.4m). Minimum of 19,200 lb (8709kg) of counterweight required.

## ■ Operator's Cab and Controls

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

Equipped with:

- Tinted and tempered glass windows
- 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 rear and right side windows for ventilation
- Six way adjustable, cushioned seat with seat belt and storage compartment
- Diesel fired warm- water heater with air ducts for front windshield defroster and cab floor
- Defroster fan for the front window
- Bubble level
- Circulating fan
- Adjustable sun visor
- Dome light
- Cup holder
- Fire extinguisher
- Left side viewing mirror
- Two position travel swing lock

**Air Conditioning - Optional** - Integral with cab heating system utilizing the same ventilation outlets

**Engine Dependant Warm- Water Heater - Optional** - With air ducts for front windshield defroster and cab floor

**Steering Column** - Pedestal type with tilt and telescope functions for operator comfort. Column includes the following controls and indicators:

Left and right levers include:

- Horn button
- Turn signal switch
- Driving light switch
- Transmission direction switch

Panel mounted switches for:

- Travel park brake
- Steer mode selector
- 2/4 wheel drive/range selector
- Transmission gear selector
- Hazard flasher

Panel mounted indicator/warning lights for:

- Transmission temperature
- Travel park brake
- Service brake
- Turn signals
- Rear wheel offset
- Emergency steer - optional

**Armrest Controls** - Two dual axis hydraulic joystick controllers or optional single axis hydraulic controllers for:

- Cab heater and A/C Controls
- Swing
- Boom hoist
- Main rear winch
- Auxiliary front winch - optional
- Drum rotation indication
- Drum rotation indicator activation switch
- Winch high/low speed and disable switch(es)
- Warning horn button
- Swing park brake
- Engine throttle lock

**Outrigger Controls** - Hand held control box with umbilical cord gives the operator the freedom to view operation while setting the outriggers.

**Foot Controls**

- Boom telescope
- Swing brake
- Engine throttle
- Service brake

**Right Front Console** - Controls and indicators for:

- |                                     |   |
|-------------------------------------|---|
| • Engine ignition                   | • 12 volt power connections                       |
| • Engine throttle lock              | • E- stop switch                                  |
| • Function disable                  | • Ignition switch on indicator light              |
| • Front windshield wiper and washer | • Boom floodlight - optional                      |
| • Cab floodlights                   | • Rotating beacon/Strobe light - optional         |
| • Warning horn                      | • Third wrap set and activate switches - optional |
| • Console dimmer switch             |   |
| • Bubble level                      |   |
| • Emergency engine shutdown         |   |

**Cab Instrumentation** - Ergonomically positioned, analog instrumentation for crane operation including:

- Tachometer
- Engine water temperature
- Fuel level
- Hydraulic oil temperature
- Stop engine
- Check engine
- Wait to start
- Diesel exhaust fluid (DEF) level
- Engine air filter high restriction light
- Regeneration light<sup>(1)</sup>
- Regeneration inhibit switch<sup>(1)</sup>
- Regeneration initiate switch<sup>(1)</sup>
- High exhaust temperature light<sup>(1)</sup>
- Regeneration disabled light<sup>(1)</sup>
- Swing park brake light
- Engine speed
- Engine oil pressure
- Battery voltage
- Fuel rate (gal/hr)
- Engine load
- Engine Diagnostics

**Camera Display** - Located on dash console

- Displays right side of upper
- Displays main and auxiliary winches

**Diagnostic Center** - Located behind the operator's seat.

- Engine diagnostic
- RCL CANBUS diagnostic
- Crane Controller USB diagnostic
- RCL controller USB diagnostic

**Link-Belt Pulse** – The Link-Belt in-house designed, total crane operating system that utilizes the display as a readout and operator interface for the following systems:

- **Rated capacity limiter** – LCD graphic audio – visual warning system integrated into the dash with anti – two block and function limiter. Operating data includes:
  - Crane configuration
  - Boom length and angle
  - Boom head height
  - Allowed load and % of allowed load
  - RCL light bar
  - Boom angle
  - Radius of load
  - Actual load
  - Wind speed
  - Highlighted unit of measurement on working screen
  - Telescope operation displayed in real time
  - Counterweight installation/removal
  - Third wrap indicator
  - Diagnostics
  - Operator settable alarms (include):
    - Maximum and minimum boom angles
    - Maximum tip height
    - Maximum boom length
    - Swing left/right positions
    - Operator defined area (imaginary plane)

<sup>(1)</sup> (Tier 4f / Stage IV engine only)

**Integrated Third Wrap Indicator - Optional** - Link-Belt Pulse color display visually and audibly warns the operator when the wire rope is on the first/bottom layer and when the wire rope is down to the last three wraps.

**Integrated Third Wrap Function Kickout - Optional** - Link-Belt Pulse color display visually and audibly warns the operator when the wire rope is on the first/bottom layer and provides a function kickout when the wire rope is down to the last three wraps.

**Internal RCL Light Bar - Optional** - Visually informs the operator when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

**External RCL Light Bar - Optional** - Visually informs the ground crew when crane is approaching maximum load capacity with a series of green, yellow, and red lights.

## ■ Swing

**Motor/Planetary** - Bi- directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 1.9 rpm

**Swing Park Brake** - 360°, electric over hydraulic, (spring applied/hydraulic released) multi- disc brake mounted on the speed reducer. Operated by a switch from the operator's cab.

**Swing Brake** - 360°, foot operated, hydraulic applied disc brake mounted to the speed reducer

**Swing Lock** - Two- position swing lock (boom over front or rear) operated from the operator's cab

**360° Positive Swing Lock - Optional** - Meets New York City requirement

## ■ Electrical

**Swing Alarm** - Audio warning device signals when the upper is swinging.

### Lights

- Two working lights on front of the cab
- One rotating amber beacon on top of the cab - optional
- One amber strobe beacon on top of the cab - optional
- Boom floodlight - Single- optional
- Boom floodlight - Dual- optional
- Boom floodlight - High intensity remote controlled- optional

## Load Hoist System

### Load Hoist Performance

Main (Front) and Auxiliary (Rear) Winches - 3/4 in (19mm) 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	18,500	82.29	172	52.4	341	103.9	114	34.7	114	34.7
2	17,071	75.94	187	57.0	371	113.1	124	37.8	238	72.5
3	15,798	70.27	202	61.6	401	122.2	134	40.8	372	113.4
4	14,701	65.39	217	66.1	430	131.1	144	43.9	516	157.3
5	13,747	61.15	232	70.7	460	140.2	154	46.9	670	204.2
6	---	---	---	---	---	---	164	50.0	834	254.2

Wire Rope Application		in	mm	Type	lb	kN
Main (Rear) Winch	Standard	3/4	19	18x19 rotation resistant - right regular lay (Type RB)	12,920	57.47
	Optional	3/4	19	4 strand, low torque, right regular lay (Type GC)	22,400	99.64
	Optional	3/4	19	34x7 rotation resistant - right regular lay (Type ZB)	15,600	69.39
Auxiliary (Front) Winch	Standard	3/4	19	18x19 rotation resistant - right regular lay (Type RB)	12,920	57.47
	Optional	3/4	19	4 strand, low torque, right regular lay (Type GC)	22,400	99.64
	Optional	3/4	19	34x7 rotation resistant - right regular lay (Type ZB)	15,600	69.39

### 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: 16 in (40.6cm)
- Rope length:
  - Main: 670 ft (204.2m)
  - Auxiliary: 500 ft (152.4m) or 670 ft (204.2m)
- Maximum rope storage: 834 ft (254.2m)
- Terminator style socket and wedge

### Hydraulic System

**Counterbalance Valves** - All hoist motors, boom extend cylinders, and boom hoist cylinders are equipped with counterbalance valves to provide load lowering and prevents accidental load drop when hydraulic power is suddenly reduced.

**Hydraulic Oil Coolers** - One carrier mounted cooler removes heat from the hydraulic oil. Remote mounted on right side of the carrier.

### Counterweight

**Standard** - Total of 19,200 lb (8.8t) counterweight consisting of two counterweights pinned to the upper with capacities for:

- 0 lb (0t) counterweight\*
- 9,600 lb (4.4t) counterweight
- 19,200 lb (8.8t) counterweight

\* Travel speed limited to 5 mph.

**Optional** - Hydraulic counterweight removal activated by a hand-held controller with enough cable to access the pins on each side of the counterweights.



## Carrier

### General

- 10 ft 9 in (3.28m) wide
- 14 ft 4 in (4.37m) wheelbase (centerline of first axle to centerline of second axle)

**Frame** - Box- type, torsion resistant, welded construction made of high tensile steel. Equipped with front and rear towing and tie- down lugs, tow connections, and access ladders.

### Outriggers

**Boxes** - Two double box, front and rear welded to carrier frame

**Beams and Jacks** - Four single stage beams with Confined Area Lifting Capacities (CALC™) provide selectable outrigger extensions of full, intermediate, and retracted. Hydraulically controlled from the operator's cab with integral check valves.

**Pontoons** - Four lightweight, quick release, 23.5 x 23.5 in (59.7 x 59.7cm), steel pontoons with contact area of 460 in<sup>2</sup> (2 968cm<sup>2</sup>) can be stored for road travel in storage racks on the carrier.

**Main Jack Reaction** - 108,000 lb (48 988kg) force and 235 psi (1 620kPa) ground bearing pressure

### Steering and Axles

**Steering** - Four independent modes consisting of two wheel front, two wheel rear, four wheel, and crab. Each mode is controlled from the steering wheel and is selected by a switch in the operator's cab.

**Drive** - Two modes: 4 x 2 and 4 x 4 for off highway travel

**Axle 1** - Steered, non- driven for 4 x 2 and steered, driven for 4 x 4

**Axle 2** - Steered, driven

### Suspension

**Front** - Rigid mount to the carrier frame

**Rear** - The rear axle is suspended on the oscillation cylinders with motion of the axle controlled by a four bar linkage system. The oscillation cylinders lockout when the upper structure rotates 2.5° past centerline.

- Hydro- gas rear suspension - optional

**Ride Height Adjustment** - Suspension can be lowered for transport using a hand- held controller from level ground.

### Tires and Wheels

**Front and Rear** - Four (single) 29.5 x 25, earthmover type tires on steel disc wheels

- Spare tires and wheels - optional

### Brakes

**Service** - Full hydraulic, dual circuit, disc type brakes on all wheel ends

**Parking/Emergency** - Spring applied type, acting on front axle

### Electrical

Two batteries provide 12 volt starting and operation

#### Lights

- Front lighting includes two main headlights and two parking/directional indicators.
- Side lighting includes two parking/directional indicators per side.
- Rear lighting includes two parking/directional indicators, two parking/brake lights, and two reversing lights.
- Other equipment includes hazard/warning system, cab light, instrument panel light, and signal horn.

### Engine

Specification	Cummins QSB	
Numbers of Cylinders	6	6
Cycle	4	4
Emissions Compliance Level:	Tier 4f/Stage IV <sup>(1)</sup>	Tier 3/Stage IIIA <sup>(2)</sup>
Bore and Stroke: inch (mm)	4.21 x 4.88 (107 x 124)	4.21 x 4.88 (107 x 124)
Piston Displacement: in <sup>3</sup> (L)	408 (6.7)	408 (6.7)
Max. Brake Horsepower: hp (kW)	270 (201) @ 2,000 rpm	270 (201) @ 2,000 rpm
	260 (194) @ 2,200 rpm	260 (194) @ 2,200 rpm
Peak Torque: ft lb (Nm)	730 (990) @ 1,500 rpm	730 (990) @ 1,500 rpm
Electric/starting systems: volts	12/12	12/12
Alternator: amps	160	160
Crankcase Capacity: qt (L)	15 (14.2)	15 (14.2)

- Water/fuel separator w/ heater and water in fuel (WIF) sensor
- 120- volt block heater - Tier 4f / Stage IV
- 220- volt block heater - Tier 3 / Stage IIIA
- Grid heater - 200 amp
- Mechanically driven, variable speed, engine controlled, viscous fan clutch
- <sup>(1)</sup> Can only be sold and/or operated where Tier 4f and Stage IV off- highway emission standards are accepted.
- <sup>(2)</sup> Can only be sold and/or operated where Tier 3 and Stage IIIA off- highway emission standards are accepted.

### Transmission

**Powershift** - Three speed with high/low range for 6 forward and 6 reverse gears. Front axle disconnect for two or four wheel drive. Front axle disconnects in high range.

## Carrier Speeds and Gradeability

Spicer		Speed			Gradeability (@ stall)
Gear	Ratio	mph	km/h	% Grade	
6th	Forward & Reverse 2WD/Hi	0.82	18.2	29.29	2.4
5th		2.25	7.7	12.39	10.2
4th		4.67	3.8	6.12	23.8
3rd	Forward & Reverse 4WD/Low	2.4	7.3	11.75	11.0
2nd		6.54	2.7	4.35	35.2
1st		13.6	1.3	2.09	101.2

Based on a gross vehicle weight of 105,500 lb (47 854kg).

Crane operating angle must not exceed 35° (77% grade).

## Fuel Tank

One 75 gal (283.9L) capacity tank

Diesel Exhaust Fluid (DEF) tank

- One 5 gal (18.9L) capacity tank

## Hydraulic System

All functions are hydraulically powered allowing positive precise control with independent or simultaneous operation of all functions.

### Main Pumps

- One two section fixed displacement gear pump for the front/rear winches and boom hoist/telescope circuits.
- One two section fixed displacement gear pump for the swing/steering and outrigger/telescope/service brake/oscillation circuits.
- One two section gear pump for an additional supply to the front/rear winch circuit and the hydraulic oil cooler fan drive.
- Combined pump capacity of 138 gpm (522.4Lpm)

**Hydraulic Reservoir** - 174 gal (658.7L) capacity equipped with sight level gauge. Diffusers built in for deaeration.

**Filtration** - One 10 micron, full flow return line filter. Accessible for easy filter replacement.

## Pump Drive

One pump is mounted on the engine with the rest being transmission mounted. All pumps are mechanically driven by the diesel engine.

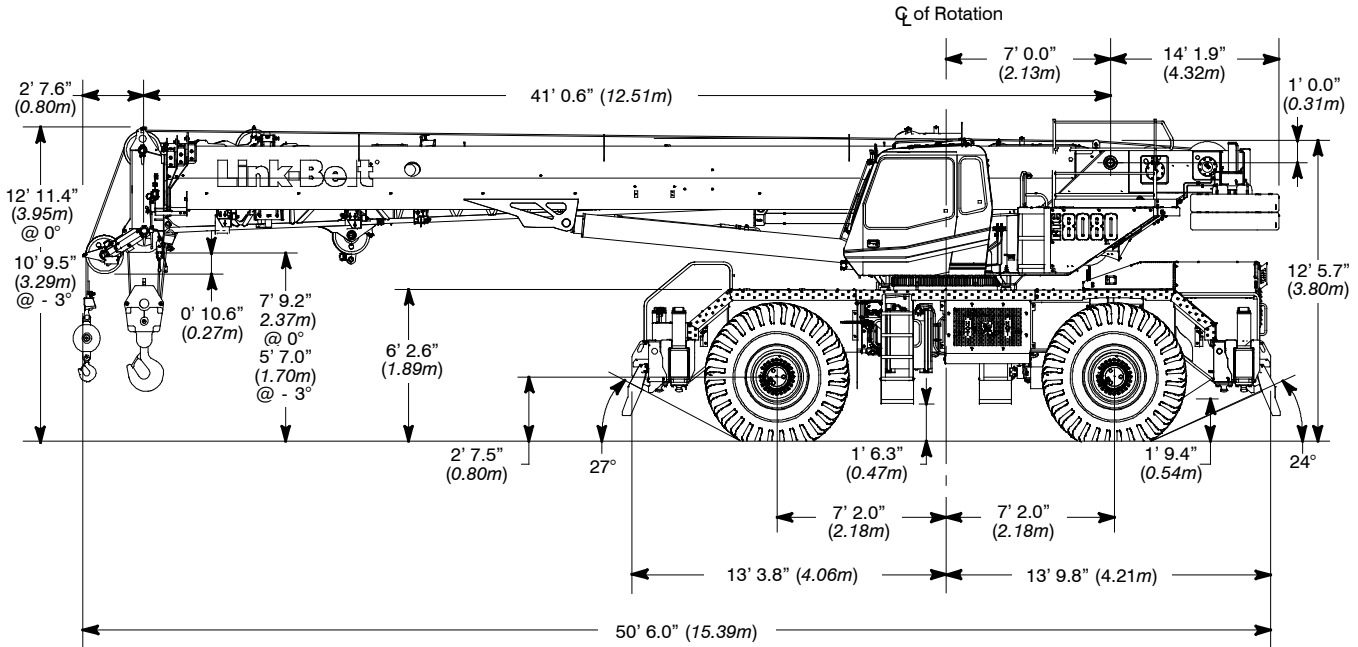
- Front/rear winches and boom hoist/telescope pump can be disconnected with a manual pump disconnect to aid in cold weather starting.

# Axle Loads

Base crane with zero counterweight and full tank of fuel	Gross Vehicle Weight <sup>(1)</sup>	Upper Facing Front				Upper Facing Rear					
		Front Axles		Rear Axles		Front Axles		Rear Axles			
		lb	kg	lb	kg	lb	kg	lb	kg		
Tier 4f/ Stage IV	81,125	36 798	52,515	23 820	28,610	12 977	21,959	9 960	59,166	26 837	
Tier 3/ Stage IIIA	80,992	36 737	52,573	23 847	28,419	12 891	22,017	9 987	58,975	26 751	
Pintle hook, front	13	6	17	8	- 5	- 2	17	8	- 5	- 2	
Pintle hook, rear	13	6	- 5	- 2	18	8	- 5	- 2	18	8	
Hydro- gas suspension	56	25	20	9	36	16	20	9	36	16	
Operator in cab	250	113	140	64	110	50	110	50	140	64	
Hoist drum follower - main	69	31	- 24	- 11	93	42	93	42	- 24	- 11	
Auxiliary winch with 500 ft (152.4m) wire rope	616	279	- 75	- 34	691	313	691	313	- 75	- 34	
Hoist drum follower - auxiliary	69	31	- 6	- 3	75	34	75	34	- 6	- 3	
Substitute 500 ft (152.4m) wire rope with 670 ft (204.2m) - auxiliary	213	97	- 7	- 3	220	100	220	100	- 7	- 3	
Remove 670 ft (202.4m) wire rope from rear (main) winch	- 856	- 388	187	85	- 1,043	- 473	- 1,043	- 473	187	85	
Remove 500 ft (152.4m) wire rope from front (auxiliary) winch	- 643	- 292	21	10	- 664	- 301	- 664	- 301	21	10	
Counterweight removal	300	136	- 89	- 40	389	176	389	176	- 89	- 40	
One slab of counterweight on upper	9,600	4 355	- 3,356	- 1 522	12,956	5 877	12,956	5 877	- 3,356	- 1 522	
Two slabs of counterweight on upper	19,200	8 709	- 6,712	- 3 045	25,912	11 754	25,912	11 754	- 6,712	- 3 045	
Emergency steering	258	117	40	18	218	99	218	99	40	18	
360° mechanical swing lock	140	64	72	33	68	31	68	31	72	33	
Air conditioning	128	58	37	17	91	87	91	87	37	17	
Floodlight to front of boom base section	11	5	15	7	- 4	- 2	- 4	- 2	15	7	
Fly mounting brackets to boom base section for fly options	225	102	306	39	- 81	- 37	- 81	- 37	306	139	
38 ft (11.6m) offsettable fly - stowed	1,659	753	2,895	1 313	- 1,236	- 561	- 1,236	- 561	2,895	1 313	
38- 64 ft (11.6- 19.5m) offsettable fly - stowed	2,401	1 089	3,888	1 764	- 1,487	- 675	- 1,487	- 675	3,888	1 764	
10- 38- 64 ft (3.0- 11.6- 19.5m) offsettable fly - stowed	2,762	1 253	4,728	2 145	- 1,966	- 892	- 1,966	- 892	4,728	2 145	
Auxiliary lifting sheave	110	50	327	148	- 217	- 98	- 217	- 98	327	148	
80 ton (72.5t) 5- sheave hook block at bumper	1,406	638	2,134	968	- 728	- 330	- 728	- 330	2,134	968	
60 ton (54.4t) 4- sheave hook block at bumper	1,109	503	1,683	763	- 574	- 260	- 574	- 260	1,683	763	
10 ton (9.1t) hook ball at bumper	583	264	885	401	- 302	- 137	- 302	- 137	885	401	
8.5 ton (7.7t) hook ball at bumper	360	163	546	248	- 186	- 84	- 186	- 84	546	248	
80 ton (72.5t) 5- sheave hook block at boom head	1,406	638	4,031	1 828	- 2,625	- 1 191	- 2,625	- 1 191	4,031	1 828	
60 ton (54.4t) 4- sheave hook block at boom head	1,109	503	3,180	1 442	- 2,071	- 939	- 2,071	- 939	3,180	1 442	
10 ton (9.1t) hook ball at boom head	583	264	1,672	758	- 1,089	- 494	- 1 089	- 494	672	758	
8.5 ton (7.7t) hook ball at boom head	360	163	1,032	468	- 672	- 305	- 672	- 305	1,032	468	
<b>Tire</b>	<b>Maximum Allowable Axle Load @ 20 mph (32.2km/h)</b>										
29.5 x 25 (28- PR)	55,000 lb (24 948kg)										

<sup>(1)</sup> Adjust gross vehicle weight and axle loading according to component weight.  
Note: All weights are ±3%.

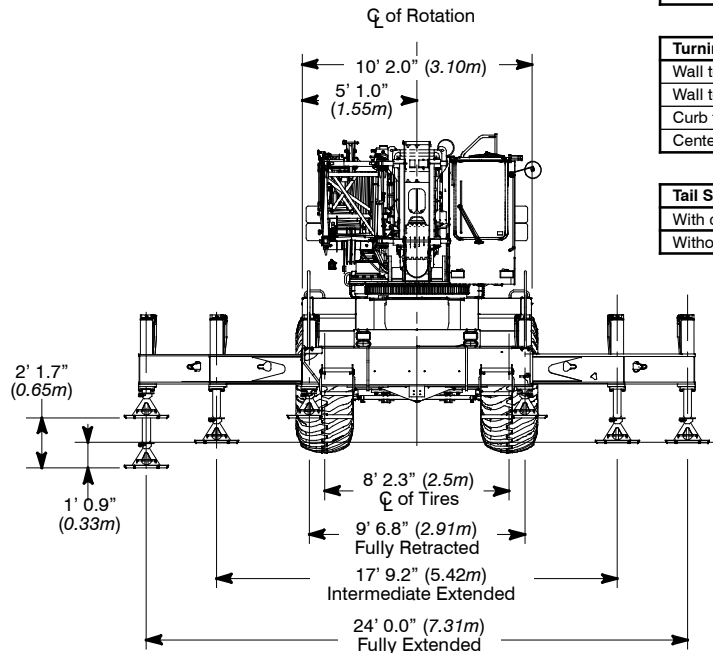
# General Dimensions



Turning Radius - Front Wheel (4x2) Steering		English	Metric
Wall to wall over carrier		48' 3"	14.71m
Wall to wall over boom attachment		60' 1"	18.31m
Curb to curb		46' 8"	14.22m
Centerline of tire		45' 3"	13.79m

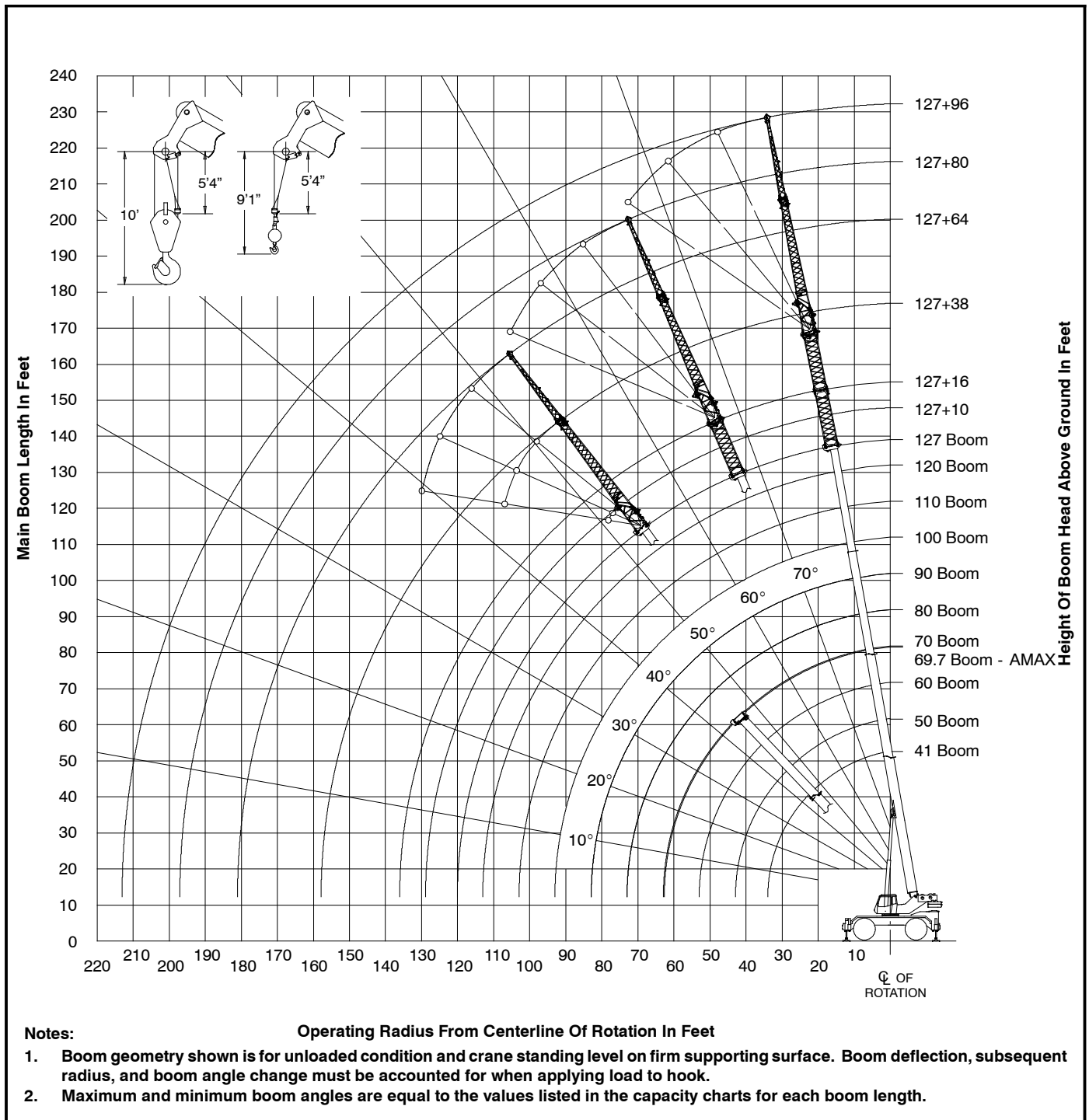
Turning Radius - All Wheel (4x4) Steering		English	Metric
Wall to wall over carrier		27' 10"	8.48m
Wall to wall over boom attachment		38' 11"	11.86m
Curb to curb		26' 0"	7.92m
Centerline of tire		24' 6"	7.47m

Tail Swing		English	Metric
With counterweight		14' 2"	4.32m
Without counterweight		13' 2"	4.01m



Not To Scale

# Main Boom Working Range Diagram - Standard



## Main Boom Lift Capacity Charts - Standard

19,200 lb Counterweight - Fully Extended Outriggers - 360° Rotation (All Capacities Are Listed In Pounds)											
Radius (ft)	Boom Length (ft)										Radius (ft)
	41	50	60	70	80	90	100	110	120	127	
10	160,000	105,600	104,100	66,700							10
12	138,200	105,600	104,100	66,700	48,000						12
15	111,100	105,600	94,200	66,700	48,000	48,600					15
20	81,500	81,200	79,100	63,600	48,000	48,600	45,900	37,300			20
25	63,400	63,100	62,800	54,600	48,000	48,600	41,400	37,300	27,100	23,200	25
30	51,000	50,800	50,600	47,600	48,000	47,100	37,700	34,100	27,100	23,200	30
35		43,100	43,700	44,100	44,400	42,800	34,400	30,900	27,100	23,200	35
40		34,200	35,000	35,400	35,600	35,800	31,300	28,200	25,900	23,200	40
45			28,200	28,700	28,900	29,100	28,500	25,800	23,700	22,600	45
50			23,200	23,800	24,000	24,200	24,400	23,700	21,800	20,700	50
55				19,900	20,300	20,400	20,600	20,700	20,100	19,100	55
60				16,900	17,200	17,400	17,600	17,700	17,700	17,700	60
65					14,700	15,000	15,100	15,200	15,300	15,300	65
70					12,700	13,000	13,100	13,200	13,300	13,300	70
75						11,300	11,500	11,600	11,700	11,800	75
80						9,800	10,000	10,200	10,300	10,300	80
85							8,700	8,900	9,000	9,100	85
90							7,600	7,800	7,900	8,000	90
95								6,800	6,900	7,000	95
100								6,000	6,100	6,200	100
105									5,300	5,400	105
110									4,600	4,700	110
115										4,100	115

This information is not for crane operation. Operator must refer to the in- cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads and on tires do not exceed 75% of the tipping loads.

# Fly Attachment Lift Capacity Charts - Optional

**19,200 lb Counterweight - Fully Extended Outriggers - 360° Rotation**  
**(All Capacities Are Listed In Pounds)**

**Main Boom + 10 ft Manual Offset Fly (2°, 15°, 30° & 45° Offsets)**

Radius (ft)	Boom Length (ft)										Radius (ft)	
	41	50	60	70	80	90	100	110	120	127		
10	40,300	41,000	41,200									10
12	35,000	35,400	35,500	39,800	39,300							12
15	34,200	34,600	34,800	34,700	34,300	38,000						15
20	33,200	33,600	33,900	33,800	33,600	33,300	35,700					20
25	32,600	32,900	33,200	33,200	33,000	32,800	32,000	29,300	23,900			25
30	32,500	32,500	32,700	32,700	32,500	31,700	29,700	27,500	23,900	20,300		30
35	32,500	32,500	32,400	32,300	31,500	29,700	27,700	25,800	23,900	20,300		35
40	32,500	32,500	32,400	31,700	29,800	27,900	26,000	24,200	22,500	20,300		40
45		29,200	29,200	29,200	28,200	26,300	24,400	22,600	21,200	20,200		45
50		24,300	24,300	24,300	24,400	24,400	22,700	21,100	19,700	18,900		50
55			20,500	20,600	20,600	20,600	20,600	19,700	18,400	17,700		55
60			17,600	17,600	17,600	17,600	17,600	17,500	17,100	16,300		60
65				15,100	15,100	15,100	15,100	15,100	15,100	15,000		65
70				13,200	13,100	13,100	13,100	13,100	13,100	13,100		70
75					11,500	11,500	11,500	11,500	11,500	11,500		75
80					10,100	10,100	10,100	10,100	10,100	10,100		80
85						8,800	8,800	8,800	8,800	8,800		85
90						7,800	7,800	7,800	7,700	7,700		90
95							6,800	6,800	6,800	6,800		95
100							6,000	6,000	6,000	6,000		100
105								5,200	5,200	5,200		105
110								4,600	4,500	4,500		110
115									3,900	3,900		115
120									3,400	3,400		120
125										2,900		125
130										2,500		130

This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads and on tires do not exceed 75% of the tipping loads.

**19,200 lb Counterweight - Fully Extended Outriggers - 360° Rotation**  
**(All Capacities Are Listed In Pounds)**

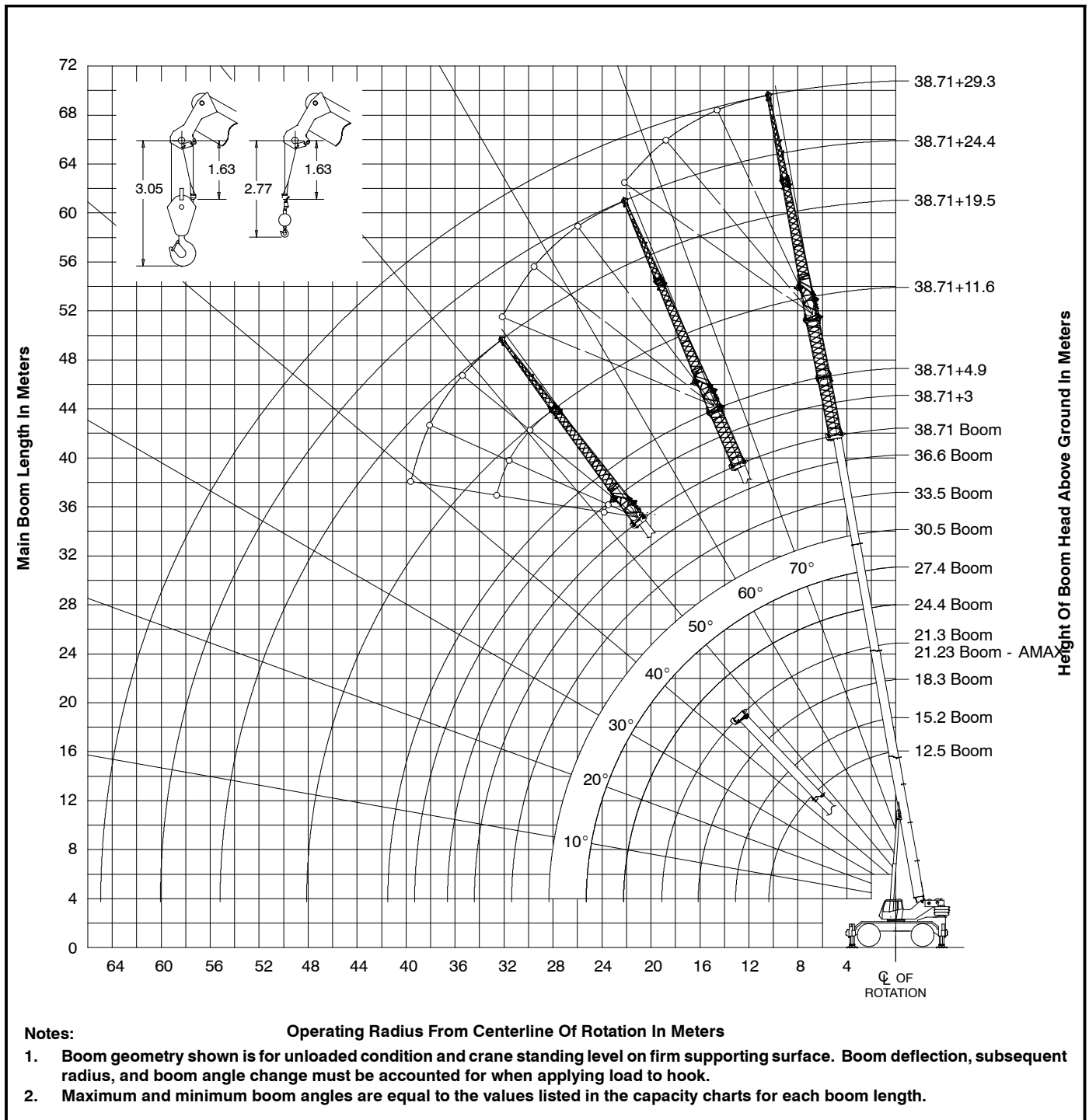
**127 ft Main Boom Length**

Radius (ft)	38 ft Manual Offset Fly				64 ft Manual Offset Fly				Radius (ft)
	2°	15°	30°	45°	2°	15°	30°	45°	
35	10,900								35
40	10,900								40
45	10,900	10,400			7,200				45
50	10,900	10,200			7,200				50
55	10,900	10,000	9,000		7,100				55
60	10,800	9,900	8,800		7,000				60
65	10,700	9,700	8,700	8,000	6,900	6,000			65
70	10,500	9,500	8,500	7,900	6,700	5,900			70
75	10,300	9,300	8,400	7,800	6,500	5,700			75
80	9,800	9,100	8,200	7,700	6,400	5,500	4,700		80
85	9,300	8,700	8,100	7,700	6,200	5,400	4,600		85
90	8,700	8,300	7,900	7,600	6,000	5,200	4,500	4,100	90
95	7,700	8,000	7,600	7,400	5,800	5,100	4,400	4,000	95
100	6,800	7,300	7,300	7,200	5,600	4,900	4,300	4,000	100
105	6,000	6,500	6,900	6,900	5,300	4,800	4,300	3,900	105
110	5,400	5,800	6,100	6,400	5,000	4,600	4,200	3,900	110
115	4,700	5,100	5,400	5,600	4,800	4,400	4,100	3,900	115
120	4,200	4,500	4,800	4,900	4,600	4,200	3,900	3,700	120
125	3,700	3,900	4,200	4,300	4,200	4,000	3,700	3,600	125
130	3,200	3,400	3,600	3,700	3,800	3,800	3,600	3,500	130
135	2,800	3,000	3,100		3,300	3,700	3,400	3,400	135
140	2,400	2,600	2,700		2,900	3,300	3,300	3,300	140
145	2,000	2,200	2,200		2,500	2,900	3,200	3,200	145
150	1,700	1,800			2,200	2,500	2,800	3,000	150
155					1,900	2,200	2,400	2,500	155
160					1,600	1,800	2,100	2,100	160
165					1,300	1,500	1,700		165
170					1,000	1,200	1,300		170
175						900			175

This information is not for crane operation. Operator must refer to the in- cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads and on tires do not exceed 75% of the tipping loads.



# Main Boom Working Range Diagram - Metric



**Notes:**

**Operating Radius From Centerline Of Rotation In Meters**

1. 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.
2. Maximum and minimum boom angles are equal to the values listed in the capacity charts for each boom length.

# Main Boom Lift Capacity Charts - Metric

8.8t Counterweight - Fully Extended Outriggers - 360° Rotation (All Capacities Are Listed In Kilograms)											
Radius (m)	Boom Length (m)										Radius (m)
	12.5	15.2	18.3	21.2	24.4	27.4	30.5	33.5	36.6	38.7	
2.5	80 000										2.5
3	72 600	47 850	47 200	30 250							3
3.5	64 400	47 850	47 200	30 250	21 750						3.5
4	57 850	47 850	45 950	30 250	21 750						4
4.5	51 250	47 850	43 100	30 250	21 750	22 000					4.5
5	45 850	45 650	40 600	30 250	21 750	22 000					5
6	37 650	37 450	36 250	29 100	21 750	22 000	20 950	16 900			6
7	31 700	31 550	31 400	26 300	21 750	22 000	19 550	16 900	12 300		7
8	27 150	27 050	26 900	23 900	21 750	22 000	18 350	16 550	12 300	10 550	8
9	23 600	23 450	23 350	21 850	21 750	21 550	17 250	15 600	12 300	10 550	9
10	19 300	19 850	20 100	20 250	20 350	20 150	16 250	14 700	12 300	10 550	10
12		14 100	14 400	14 550	14 650	14 700	14 350	12 950	11 900	10 550	12
14			10 900	11 100	11 150	11 250	11 300	11 350	10 600	10 050	14
16			8 450	8 700	8 800	8 900	8 950	8 950	9 000	9 000	16
18				6 950	7 100	7 150	7 200	7 250	7 300	7 300	18
20					5 800	5 900	5 950	5 950	6 000	6 000	20
22					4 750	4 850	4 950	5 000	5 050	5 050	22
24						4 000	4 100	4 150	4 200	4 200	24
26							3 350	3 450	3 500	3 500	26
28							2 750	2 800	2 900	2 900	28
30								2 300	2 350	2 400	30
32									1 900	1 950	32
34									1 550	1 600	34
36										1 250	36

This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 75% of the tipping loads and on tires do not exceed 65% of the tipping loads.

# Fly Attachment Lift Capacity Charts - Optional

## 8.8t Counterweight - Fully Extended Outriggers - 360° Rotation (All Capacities Are Listed In Kilograms)

### Main Boom + 3m Manual Offset Fly (2°, 15°, 30° & 45° Offsets)

Radius (m)	Boom Length (m)										Radius (m)	
	12.5	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	38.7		
3	16 200	18 650	18 700									3
3.5	15 950	16 100	16 150	18 150								3.5
4	15 750	15 900	16 000	15 850	17 700							4
4.5	15 550	15 700	15 800	15 750	17 500							4.5
5	15 350	15 550	15 650	15 600	15 500	17 100						5
6	15 050	15 250	15 400	15 350	15 250	15 150	17 950					6
7	14 850	15 050	15 150	15 150	15 050	14 950	14 650	15 050	10 800			7
8	14 750	14 850	15 000	14 950	14 900	14 800	14 250	13 150	10 800			8
9	14 750	14 750	14 800	14 800	14 750	14 500	13 550	12 550	10 800	9 200		9
10	14 750	14 700	14 700	14 700	14 650	13 850	12 950	12 000	10 800	9 200		10
12	14 750	14 700	14 650	14 450	13 650	12 750	11 900	11 050	10 300	9 200		12
14		11 300	11 300	11 300	11 300	11 300	10 900	10 150	9 500	9 050		14
16		8 950	8 900	8 900	8 950	8 900	8 900	8 900	8 650	8 300		16
18			7 200	7 200	7 200	7 200	7 200	7 200	7 200	7 200		18
20				5 950	5 950	5 950	5 950	5 900	5 900	5 900		20
22				4 950	4 950	4 950	4 950	4 950	4 950	4 950		22
24					4 100	4 100	4 100	4 100	4 100	4 100		24
26						3 400	3 400	3 400	3 400	3 400		26
28						2 600	2 800	2 800	2 800	2 800		28
30							2 350	2 300	2 300	2 300		30
32								1 900	1 900	1 900		32
34								1 500	1 500	1 500		34
36									1 200	1 200		36
38										900		38

This information is not for crane operation. Operator must refer to the in- cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 75% of the tipping loads and on tires do not exceed 65% of the tipping loads.

**8 709kg Counterweight - Fully Extended Outriggers - 360° Rotation**  
**(All Capacities Are Listed In Kilograms)**

**38.7m Main Boom Length**

Radius (m)	11.6m Manual Offset Fly				19.5m Manual Offset Fly				Radius (m)
	2°	15°	30°	45°	2°	15°	30°	45°	
10	4 950								10
12	4 950								12
14	4 950	4 700			3 300				14
16	4 950	4 600			3 250				16
18	4 900	4 500	4 000		3 150				18
20	4 800	4 350	3 900	3 600	3 100	2 700			20
22	4 700	4 250	3 850	3 550	3 000	2 600			22
24	4 500	4 150	3 750	3 500	2 900	2 500	2 150		24
26	3 850	3 950	3 700	3 500	2 800	2 450	2 100		26
28	3 200	3 500	3 550	3 450	2 700	2 350	2 050	1 850	28
30	2 700	2 950	3 150	3 300	2 600	2 250	2 000	1 800	30
32	2 250	2 450	2 650	2 800	2 400	2 200	1 950	1 800	32
34	1 900	2 050	2 250	2 350	2 150	2 050	1 900	1 750	34
36	1 550	1 700	1 850	1 900	1 800	1 950	1 800	1 700	36
38	1 250	1 400	1 500	1 550	1 500	1 800	1 700	1 650	38
40	1 000	1 100	1 200		1 250	1 500	1 600	1 550	40
42	750	850	950		1 000	1 200	1 400	1 500	42
44	550	650	650		800	1 000	1 150	1 250	44
46					600	750	900	950	46
48						550	700	700	48

This information is not for crane operation. Operator must refer to the in- cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 75% of the tipping loads and on tires do not exceed 65% of the tipping loads.

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