

ROUGH TERRAIN CRANE 90 TONS

LINK-BELT RTC-8090ii

BOOM LENGTHS:
38 TO 140 FT

JIB LENGTHS:
35 TO 90 FT

JIB OFFSETS:
2 - 15 - 30 - 45



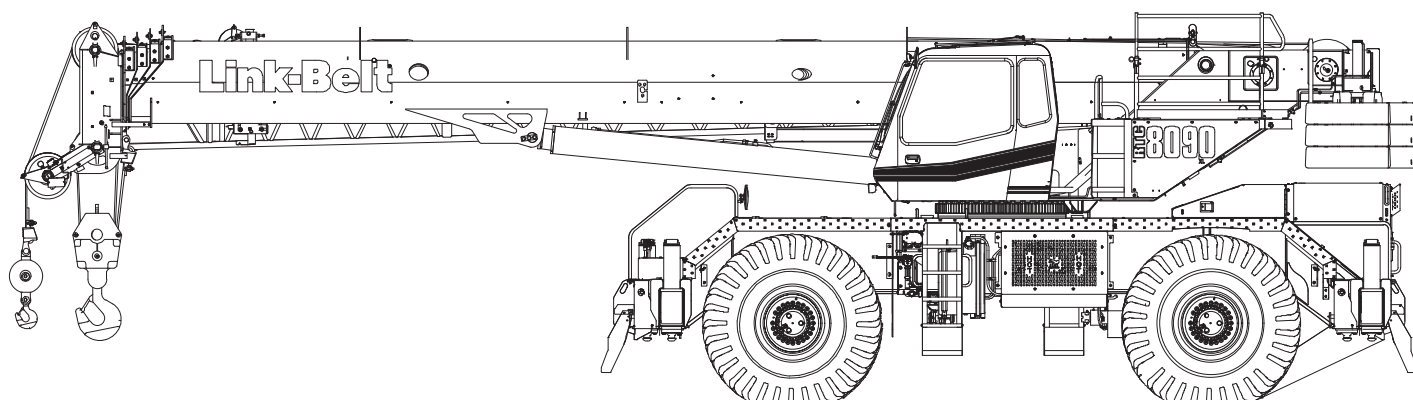
NOTES:

Technical Data

Specifications & Capacities

RTC 8090

Series II
90 US ton
80 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 two plate design of each section has multiple longitudinal bends for superior strength. Each telescoping section extends independently by means of one double-acting, single stage hydraulic cylinder with integrated holding valves.

Boom

- 38-140 ft (11.6-42.7m) five section boom
- Three boom extend modes (EM1 through EM3), controlled from the operator's cab, provide superior capacities by varying the extension of the telescoping sections:
 - EM1 extends to 140.0 ft (42.7m)
 - EM2 extends to 115.8 ft (35.3m)
 - EM3 extends to 76.5 ft (23.3m)
- Mechanical boom angle indicator
- Maximum tip height for each extend mode is:
 - EM1 is 149 ft 7 in (45.6m)
 - EM2 is 125 ft 9 in (38.3m)
 - EM3 is 87 ft 1 in (26.5m)

Boom Wear Pads

- Wear pads with Teflon inserts that self-lubricate the boom sections
- Bottom wear pads are universal for all boom sections
- 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 (36.3mt) 3 sheave quick-reeve hook block with safety latch
- 40 ton (36.3mt) 4 sheave quick-reeve hook block with safety latch
- 60 ton (54.4mt) 4 sheave quick-reeve hook block with safety latch
- 80 ton (72.5mt) 5 sheave quick-reeve hook block with safety latch
- 90 ton (80.0mt) 6 sheave quick-reeve hook block with safety latch
- 8.5 ton (7.7mt) swivel and non-swivel hook balls with safety latch
- 10 ton (9.1mt) swivel and non-swivel hook balls with safety latch

Fly - Optional

- 35 ft (10.7m) one piece lattice fly, stowable, offsettable to 2°, 15°, 30°, and 45°. Maximum tip height is 184 ft 2 in (56.1m).
- 35 ft-58 ft (10.7-17.7m) two piece bi-fold lattice fly, stowable, offsettable to 2°, 15°, 30°, and 45°. Maximum tip height is 206 ft 8 in (63.0m).

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 222 ft 4 in (67.8m).
- 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 238 ft 2 in (72.6m). Minimum of 19,200 lb (8.8t) of counterweight required.



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■ Operator's Cab and Controls

Environmental Cab - Fully enclosed, one person cab of galvaneal 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
- AM/FM radio

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
- 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 -

- Engine ignition
- Engine throttle lock
- Function disable
- Front windshield wiper and washer
- Cab floodlights
- Warning horn
- Console dimmer switch
- Bubble level

Controls and indicators for:

- 12 volt power connections
- E-stop switch
- Ignition switch on indicator light
- Boom floodlight's - optional
- Rotating beacon/Strobe light - optional
- Third wrap set and activate switches - optional



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Cab Instrumentation – Ergonomically positioned, digital 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 ⁽¹⁾
- Engine air filter high restriction light ⁽¹⁾
- Regeneration light ⁽¹⁾
- Regeneration inhibit switch ⁽¹⁾
- Regeneration initiate switch ⁽¹⁾
- High exhaust temperature light ⁽¹⁾
- Regeneration disabled light ⁽¹⁾
- 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
 - Active pin/latch status
 - Telescope operation displayed in real time
 - Outrigger position sensing
 - Drum rotation direction indication
 - 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)
- Extend control module (ECM)
 - Controls the extend modes
 - Diagnostics

⁽¹⁾ (Tier 4f / Stage IV engine only)

• **Telematics** – Cellular based data logging and monitoring system that provides:

- Location and operational settings
- Routine maintenance
- Crane and engine monitoring
- Diagnostic and fault codes

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 LED 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
- One LED working light on top of cab - optional
- Boom floodlight - Single - optional
- Boom floodlight - Dual - optional
- Boom floodlight - High intensity remote controlled - optional



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Load Hoist System

Load Hoist Performance

| Main (Rear) and Auxiliary (Front) | | | | | 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 | 16,880 | 75.09 | 172 | 52.4 | 341 | 104.0 | 114 | 34.7 | 114 | 34.7 |
| 2 | 15,519 | 69.03 | 187 | 57.0 | 371 | 113.1 | 124 | 37.8 | 238 | 72.5 |
| 3 | 14,362 | 63.89 | 202 | 61.6 | 401 | 122.2 | 134 | 40.8 | 372 | 113.4 |
| 4 | 13,365 | 59.45 | 217 | 66.1 | 430 | 131.1 | 144 | 43.9 | 516 | 157.3 |
| 5 | 12,497 | 55.59 | 232 | 70.7 | 460 | 140.2 | 154 | 46.9 | 670 | 204.2 |
| 6 | --- | --- | --- | --- | --- | --- | 164 | 50.0 | 834 | 254.2 |

| Wire Rope Application | | Diameter | | Type | Maximum Permissible Load | |
|-------------------------|----------|----------|----|--|--------------------------|-------|
| | | in | mm | | 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: 730 ft (222.5m)
 - Auxiliary: 500 ft (152.4m) or 730 ft (222.5m)
- 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

Optional - 9,600 lb (4.4t) in addition to standard counterweight for a total of 28,800 lb (13.2t) counterweight with capacities for:

- 0 lb (0t) counterweight*
- 9,600 lb (4.4t) counterweight
- 19,200 lb (8.8t) counterweight
- 28,800 lb (13.2t) 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.



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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 TM) 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 (2 968cm ²) 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.

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.

Tires and Wheels

Front and Rear - Four (single) 29.5 x 25-28 ply rating, 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 ⁽¹⁾ | Tier 3/Stage IIIA ⁽²⁾ |
| Bore and Stroke: inch (mm) | 4.21 x 4.88 (107 x 124) | 4.21 x 4.88 (107 x 124) |
| Piston Displacement: in ³ (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) |
| <ul style="list-style-type: none">• 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• ⁽¹⁾ Can only be sold and/or operated where Tier 4f and Stage IV 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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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 gallon (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 - 153 gal (579.2L) 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.



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Axle Loads

| Base crane with zero counterweight and full tank of fuel | | Gross Vehicle Weight (¹) | | Upper Facing Front | | | | Upper Facing Rear | | | |
|---|---------------------|---------------------------------------|--------|--------------------|--------|------------|--------|-------------------|--------|------------|--------|
| | | lb | kg | Front Axles | | Rear Axles | | Front Axles | | Rear Axles | |
| | | | | lb | kg | lb | kg | lb | kg | lb | kg |
| | Tier 4f / Stage IV | 80,681 | 36 596 | 50,869 | 23 074 | 29,812 | 13 522 | 23,261 | 10 551 | 57,419 | 26 045 |
| | Tier 3 / Stage IIIA | 80,863 | 36 679 | 51,151 | 23 202 | 29,446 | 13 356 | 23,544 | 10 679 | 57,053 | 25 879 |
| 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 | | 608 | 276 | -74 | -34 | 682 | 309 | 682 | 309 | -74 | -34 |
| Hoist drum follower - auxiliary | | 69 | 31 | -6 | -3 | 75 | 34 | 75 | 34 | -6 | -3 |
| Substitute 500 ft (152.4m) wire rope with 730 ft (222.5m) - auxiliary | | 288 | 131 | -9 | -4 | 297 | 135 | 297 | 135 | -9 | -4 |
| Remove 730 ft (222.5m) wire rope from rear (main) winch | | -931 | -422 | 203 | 92 | -1,134 | -514 | -1,134 | -514 | 203 | 92 |
| Remove 500 ft (152.4m) wire rope from front (auxiliary) winch | | -643 | -292 | 21 | 10 | -664 | -301 | -664 | -301 | 21 | 10 |
| Counterweight removal | | 208 | 94 | -62 | -28 | 270 | 122 | 270 | 122 | -62 | -28 |
| 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 |
| Three slabs of counterweight on upper | | 28,800 | 13 064 | -10,068 | -4 567 | 38,868 | 17 630 | 38,868 | 17 630 | -10,068 | -4 567 |
| Emergency steering | | 255 | 116 | 39 | 18 | 216 | 100 | 216 | 100 | 39 | 18 |
| 360° mechanical swing lock | | 140 | 64 | 72 | 33 | 68 | 31 | 68 | 31 | 72 | 33 |
| Air conditioning | | 179 | 81 | 50 | 23 | 129 | 59 | 129 | 59 | 50 | 23 |
| Floodlight to front of boom base section | | 7 | 3 | 10 | 5 | -3 | -1 | -3 | -1 | 10 | 5 |
| Fly mounting brackets to boom base section for fly options | | 176 | 80 | 239 | 108 | -63 | -29 | -63 | -29 | 239 | 108 |
| 35 ft (10.67m) offsettable fly - stowed | | 1,591 | 722 | 2,576 | 1 168 | -984 | -446 | -984 | -446 | 2,576 | 1 168 |
| 35-58 ft (10.67-17.68m) offsettable fly - stowed | | 2,263 | 1 026 | 3,257 | 1 477 | -994 | -451 | -994 | -451 | 3,257 | 1 477 |
| Auxiliary lifting sheave | | 110 | 50 | 304 | 138 | -194 | -88 | -194 | -88 | 304 | 138 |
| 90 ton (80.0mt) 6-sheave hook block at bumper | | 1,554 | 705 | 2,358 | 1 070 | -804 | -365 | -804 | -365 | 2,358 | 1 070 |
| 80 ton (72.5mt) 5-sheave hook block at bumper | | 1,406 | 638 | 2,134 | 968 | -728 | -330 | -728 | -330 | 2,134 | 968 |
| 60 ton (54.4mt) 4-sheave hook block at bumper | | 1,109 | 503 | 1,683 | 763 | -574 | -260 | -574 | -260 | 1,683 | 763 |
| 10 ton (9.1mt) hook ball at bumper | | 550 | 250 | 834 | 378 | -284 | -129 | -284 | -129 | 834 | 378 |
| 8.5 ton (7.7mt) hook ball at bumper | | 360 | 163 | 546 | 248 | -186 | -84 | -186 | -84 | 546 | 248 |
| 90 ton (80.0mt) 6-sheave hook block at boom head | | 1,554 | 705 | 4,138 | 1 877 | -2,584 | -1 172 | -2,584 | -1 172 | 4,138 | 1 877 |
| 80 ton (72.5mt) 5-sheave hook block at boom head | | 1,406 | 638 | 3,744 | 1 698 | -2,338 | -1 061 | -2,338 | -1 061 | 3,744 | 1 698 |
| 60 ton (54.4mt) 4-sheave hook block at boom head | | 1,109 | 503 | 2,953 | 1 340 | -1,844 | -836 | -1,844 | -836 | 2,953 | 1 340 |
| 10 ton (9.1mt) hook ball at boom head | | 550 | 250 | 1,465 | 665 | -915 | -415 | -915 | -415 | 1,465 | 665 |
| 8.5 ton (7.7mt) hook ball at boom head | | 360 | 163 | 959 | 435 | -599 | -272 | -599 | -272 | 959 | 435 |

| Tire | Maximum Allowable Axle Load @ 20 mph (32.2km/h) |
|-------------------|---|
| 29.5 x 25 (28-PR) | 55,000 lb (24 948kg) |

(¹) Adjust gross vehicle weight and axle loading according to component weight.

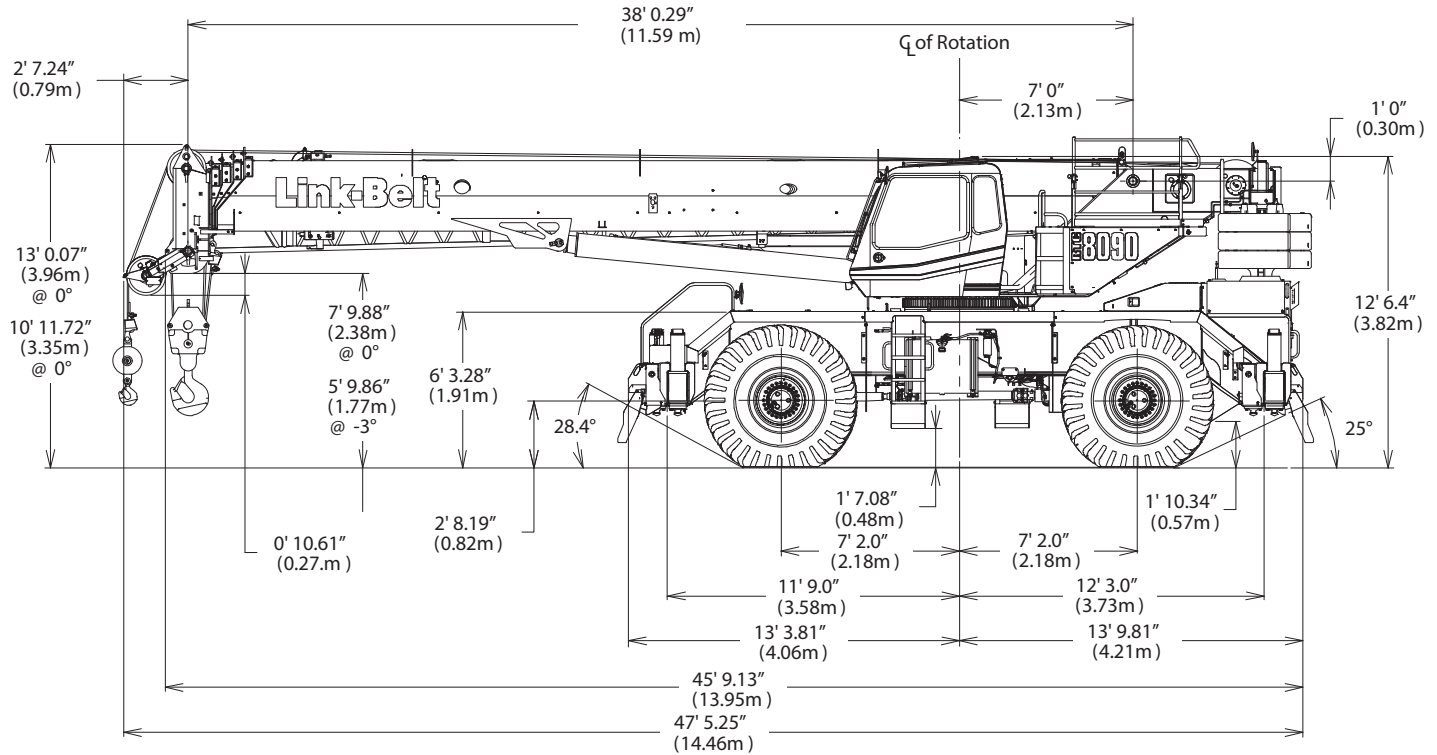
Note: All weights are ±3%.



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General Dimensions

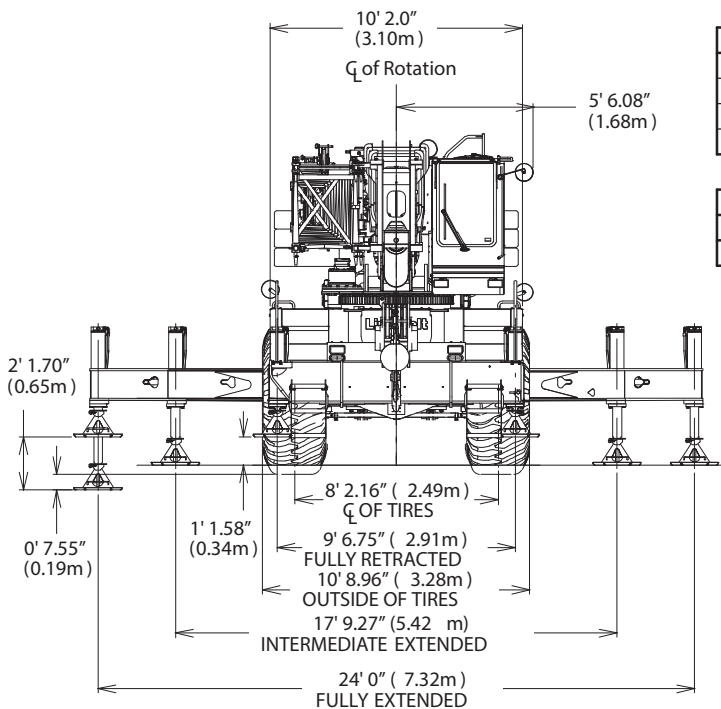
Tier 3 / Stage IIIA



| 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 |

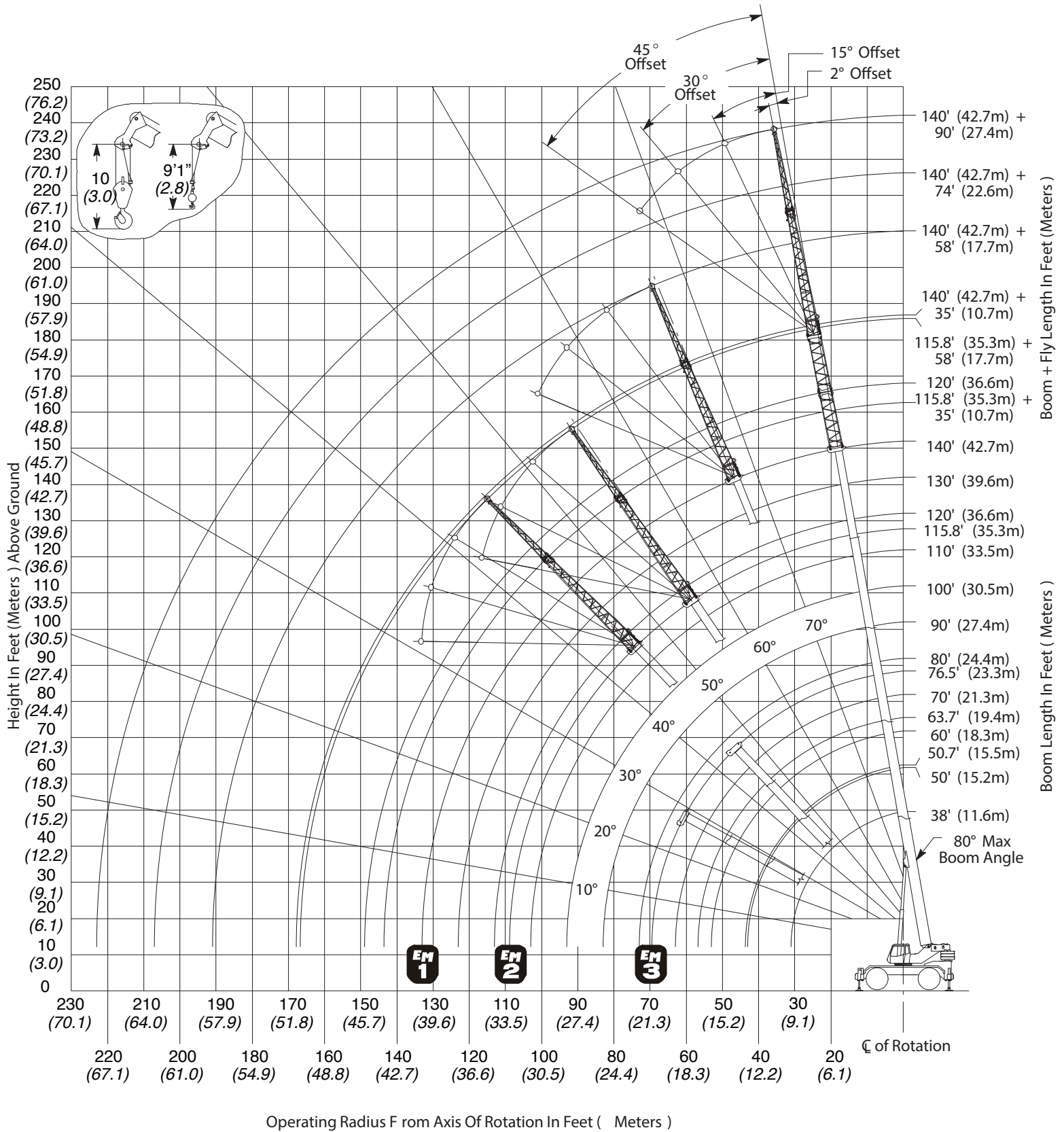


Not To Scale



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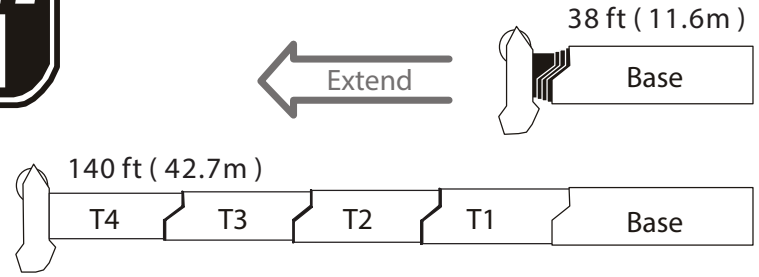
Working Range Diagram



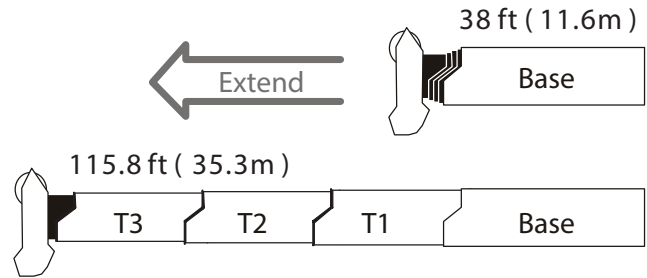
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Boom Extend Modes

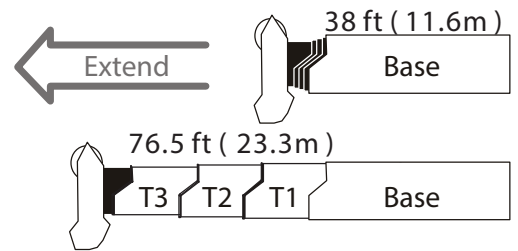
| Boom Length | | Section Length | | | |
|-------------|------|----------------|------|------|------|
| ft | m | T4 | T3 | T2 | T1 |
| 50 | 15.2 | 50% | | | |
| 60 | 18.3 | 91% | | | |
| 70 | 21.3 | 100% | 31% | | |
| 80 | 24.4 | 100% | 71% | | |
| 90 | 27.4 | 100% | 100% | 11% | |
| 100 | 30.5 | 100% | 100% | 49% | |
| 110 | 33.5 | 100% | 100% | 88% | |
| 120 | 36.6 | 100% | 100% | 100% | 25% |
| 130 | 39.6 | 100% | 100% | 100% | 63% |
| 140 | 42.7 | 100% | 100% | 100% | 100% |



| Boom Length | | Section Length | | | |
|-------------|------|----------------|------|------|------|
| ft | m | T4 | T3 | T2 | T1 |
| 50 | 15.2 | 0% | 48% | | |
| 60 | 18.3 | 0% | 88% | | |
| 70 | 21.3 | 0% | 100% | 27% | |
| 80 | 24.4 | 0% | 100% | 65% | |
| 90 | 27.4 | 0% | 100% | 100% | 4% |
| 100 | 30.5 | 0% | 100% | 100% | 41% |
| 115.8 | 35.3 | 0% | 100% | 100% | 100% |



| Boom Length | | Section Length | | | |
|-------------|------|----------------|-----|-----|-----|
| ft | m | T4 | T3 | T2 | T1 |
| 50.7 | 15.5 | 0% | 51% | | |
| 63.7 | 19.4 | 0% | 51% | 50% | |
| 76.5 | 23.3 | 0% | 51% | 50% | 48% |



Main Boom Lift Capacity Charts - Imperial

19,200 lb Counterweight - Fully Extended Outriggers - 360° Rotation

(All Capacities Are Listed In Pounds)

| Radius (ft) | Boom Length (ft) | | | | | | | | | | | Radius (ft) |
|----------------|------------------|---------|---------|--------|--------|--------|--------|----------|--------|--------|--------|----------------|
| | 38 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | |
| 8 | 180,000* | | | | | | | | | | | 8 |
| 10 | 160,000 | 152,000 | 117,900 | 70,800 | | | | | | | | 10 |
| 12 | 138,000 | 138,600 | 108,800 | 70,800 | 85,100 | | | | | | | 12 |
| 15 | 109,500 | 111,700 | 106,500 | 70,800 | 78,400 | 54,200 | | | | | | 15 |
| 20 | 80,100 | 82,400 | 82,800 | 63,500 | 76,500 | 52,000 | 49,100 | 27,200 | | | | 20 |
| 25 | 62,000 | 64,300 | 64,800 | 54,800 | 64,300 | 45,600 | 45,200 | 36,300** | 28,000 | 26,900 | | 25 |
| 30 | 49,700 | 52,000 | 52,600 | 47,800 | 52,100 | 40,600 | 42,200 | 35,900** | 28,000 | 26,500 | 24,400 | 30 |
| 35 | | 42,900 | 44,100 | 42,500 | 42,800 | 36,500 | 38,300 | 35,500** | 28,000 | 26,300 | 24,100 | 35 |
| 40 | | 34,300 | 34,600 | 35,000 | 35,100 | 33,000 | 34,700 | 33,400** | 28,000 | 26,100 | 24,000 | 40 |
| 45 | | | 28,100 | 28,400 | 28,500 | 28,500 | 28,100 | 27,500** | 26,100 | 25,900 | 23,800 | 45 |
| 50 | | | 23,200 | 23,600 | 23,700 | 23,800 | 23,300 | 23,800 | 24,100 | 24,600 | 23,700 | 50 |
| 55 | | | 19,000 | 20,800 | 21,300 | 20,000 | 21,300 | 21,700 | 21,300 | 20,900 | 20,500 | 55 |
| 60 | | | | 18,400 | 18,800 | 18,300 | 18,800 | 18,700 | 18,300 | 17,900 | 17,600 | 60 |
| 65 | | | | | 16,300 | 16,500 | 16,400 | 16,300 | 15,900 | 15,500 | 15,100 | 65 |
| 70 | | | | | 14,300 | 14,500 | 14,400 | 14,300 | 13,900 | 13,500 | 13,200 | 70 |
| 75 | | | | | | 12,800 | 12,800 | 12,700 | 12,300 | 12,000 | 11,600 | 75 |
| 80 | | | | | | 11,400 | 11,300 | 11,200 | 10,900 | 10,500 | 10,200 | 80 |
| 85 | | | | | | | 10,100 | 10,000 | 9,700 | 9,300 | 9,000 | 85 |
| 90 | | | | | | | 9,000 | 8,900 | 8,600 | 8,200 | 7,900 | 90 |
| 95 | | | | | | | | 8,000 | 7,700 | 7,300 | 7,000 | 95 |
| 100 | | | | | | | | 7,100 | 6,800 | 6,500 | 6,200 | 100 |
| 105 | | | | | | | | 4,200** | 6,100 | 5,700 | 5,400 | 105 |
| 110 | | | | | | | | | 5,400 | 5,100 | 4,700 | 110 |
| 115 | | | | | | | | | | 4,500 | 4,200 | 115 |
| 120 | | | | | | | | | | 3,900 | 3,600 | 120 |
| 125 | | | | | | | | | | | 3,100 | 125 |
| 130 | | | | | | | | | | | 2,700 | 130 |

* Special Conditions Or Wire Rope Required

** Boom Mode EM2, 115.8 ft



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28,800 lb Counterweight - Fully Extended Outriggers - 360° Rotation

(All Capacities Are Listed In Pounds)

| Radius (ft) | Boom Length (ft) | | | | | | | | | | | Radius (ft) |
|----------------|------------------|---------|---------|--------|--------|--------|--------|----------|--------|--------|--------|----------------|
| | 38 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | |
| 8 | 180,000* | | | | | | | | | | | 8 |
| 10 | 160,000 | 152,000 | 117,900 | 70,800 | | | | | | | | 10 |
| 12 | 139,600 | 138,600 | 108,800 | 70,800 | 85,100 | | | | | | | 12 |
| 15 | 116,300 | 118,400 | 106,500 | 70,800 | 78,400 | 54,200 | | | | | | 15 |
| 20 | 85,300 | 87,500 | 87,900 | 63,500 | 76,500 | 52,000 | 49,100 | 27,200 | | | | 20 |
| 25 | 66,200 | 68,500 | 69,000 | 54,800 | 68,500 | 45,600 | 45,200 | 36,300** | 28,000 | 26,900 | | 25 |
| 30 | 53,200 | 55,500 | 56,100 | 47,800 | 55,700 | 40,600 | 42,200 | 35,900** | 28,000 | 26,500 | 24,400 | 30 |
| 35 | | 46,200 | 46,800 | 42,500 | 46,400 | 36,500 | 38,300 | 35,500** | 28,000 | 26,300 | 24,100 | 35 |
| 40 | | 39,600 | 40,100 | 38,100 | 39,300 | 33,000 | 34,900 | 33,400** | 28,000 | 26,100 | 24,000 | 40 |
| 45 | | | 34,200 | 34,500 | 33,800 | 30,100 | 32,100 | 30,300** | 26,100 | 25,900 | 23,800 | 45 |
| 50 | | | 28,500 | 28,900 | 28,900 | 27,600 | 28,500 | 27,900** | 24,100 | 25,200 | 23,700 | 50 |
| 55 | | | 23,700 | 24,600 | 24,700 | 24,700 | 24,300 | 23,800** | 22,300 | 23,500 | 23,600 | 55 |
| 60 | | | | 21,100 | 21,200 | 21,300 | 20,900 | 20,400** | 20,700 | 21,900 | 21,700 | 60 |
| 65 | | | | | 18,500 | 18,500 | 18,600 | 18,900 | 19,300 | 19,300 | 18,900 | 65 |
| 70 | | | | | 17,300 | 16,200 | 17,500 | 17,700 | 17,400 | 17,000 | 16,600 | 70 |
| 75 | | | | | | 14,900 | 15,900 | 15,700 | 15,400 | 15,000 | 14,700 | 75 |
| 80 | | | | | | 14,100 | 14,200 | 14,100 | 13,700 | 13,400 | 13,000 | 80 |
| 85 | | | | | | | 12,800 | 12,700 | 12,400 | 12,000 | 11,700 | 85 |
| 90 | | | | | | | 11,600 | 11,500 | 11,200 | 10,800 | 10,500 | 90 |
| 95 | | | | | | | | 10,400 | 10,100 | 9,700 | 9,400 | 95 |
| 100 | | | | | | | | 9,400 | 9,100 | 8,700 | 8,400 | 100 |
| 105 | | | | | | | | 6,300** | 8,200 | 7,900 | 7,600 | 105 |
| 110 | | | | | | | | | 7,400 | 7,100 | 6,800 | 110 |
| 115 | | | | | | | | | | 6,400 | 6,100 | 115 |
| 120 | | | | | | | | | | 5,800 | 5,500 | 120 |
| 125 | | | | | | | | | | | 4,900 | 125 |
| 130 | | | | | | | | | | | 4,400 | 130 |

* Special Conditions Or Wire Rope Required

** Boom Mode EM2, 115.8 ft



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Fly Attachment Lift Capacity Charts - Optional

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

| 140 ft Main Boom Length 2° Fly Offset | | | | | 140 ft Main Boom Length 15° Fly Offset | | | | |
|--|-----------------|-------|-------|-------|---|-----------------|-------|-------|-------|
| Radius (ft) | Fly Length (ft) | | | | Radius (ft) | Fly Length (ft) | | | |
| | 35 | 58 | 74 | 90 | | 35 | 58 | 74 | 90 |
| 35 | 12,100 | | | | 35 | | | | |
| 40 | 12,100 | | | | 40 | | | | |
| 45 | 12,100 | 8,500 | | | 45 | 11,500 | | | |
| 50 | 12,100 | 8,400 | 6,600 | | 50 | 11,400 | | | |
| 55 | 12,100 | 8,300 | 6,600 | 5,200 | 55 | 11,200 | | | |
| 60 | 12,100 | 8,100 | 6,600 | 5,200 | 60 | 11,000 | 7,200 | | |
| 65 | 11,900 | 8,000 | 6,600 | 5,200 | 65 | 10,800 | 7,000 | 6,300 | |
| 70 | 11,700 | 7,800 | 6,600 | 5,200 | 70 | 10,600 | 6,800 | 6,000 | 4,800 |
| 75 | 11,500 | 7,700 | 6,600 | 5,100 | 75 | 10,400 | 6,700 | 5,700 | 4,500 |
| 80 | 10,900 | 7,500 | 6,400 | 4,800 | 80 | 10,200 | 6,500 | 5,400 | 4,200 |
| 85 | 9,600 | 7,300 | 6,000 | 4,500 | 85 | 10,000 | 6,300 | 5,100 | 4,000 |
| 90 | 8,500 | 7,100 | 5,700 | 4,200 | 90 | 9,100 | 6,200 | 4,900 | 3,700 |
| 95 | 7,600 | 6,900 | 5,400 | 4,000 | 95 | 8,100 | 6,000 | 4,600 | 3,500 |
| 100 | 6,700 | 6,700 | 5,100 | 3,700 | 100 | 7,200 | 5,900 | 4,400 | 3,300 |
| 105 | 6,000 | 6,400 | 4,900 | 3,500 | 105 | 6,400 | 5,700 | 4,200 | 3,100 |
| 110 | 5,300 | 5,700 | 4,700 | 3,300 | 110 | 5,700 | 5,600 | 4,100 | 3,000 |
| 115 | 4,700 | 5,100 | 4,500 | 3,200 | 115 | 5,000 | 5,500 | 3,900 | 2,800 |
| 120 | 4,100 | 4,500 | 4,300 | 3,000 | 120 | 4,400 | 5,100 | 3,700 | 2,700 |
| 125 | 3,600 | 4,000 | 3,900 | 2,800 | 125 | 3,900 | 4,500 | 3,600 | 2,500 |
| 130 | 3,100 | 3,600 | 3,500 | 2,700 | 130 | 3,400 | 4,000 | 3,500 | 2,400 |
| 135 | 2,700 | 3,100 | 3,000 | 2,500 | 135 | 3,000 | 3,600 | 3,300 | 2,300 |
| 140 | 2,300 | 2,700 | 2,600 | 2,400 | 140 | 2,500 | 3,100 | 3,000 | 2,200 |
| 145 | 2,000 | 2,400 | 2,300 | 2,200 | 145 | 2,200 | 2,700 | 2,600 | 2,100 |
| 150 | 1,700 | 2,000 | 1,900 | 1,900 | 150 | 1,800 | 2,400 | 2,200 | 2,000 |
| 155 | 1,400 | 1,700 | 1,600 | 1,600 | 155 | 1,500 | 2,000 | 1,900 | 1,900 |
| 160 | 1,100 | 1,400 | 1,300 | 1,300 | 160 | 1,200 | 1,700 | 1,600 | 1,600 |
| 165 | 800 | 1,200 | 1,000 | 1,000 | 165 | 900 | 1,400 | 1,300 | 1,300 |
| 170 | | 900 | | | 170 | | 1,100 | 1,000 | 1,000 |



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

| 140 ft Main Boom Length 30° Fly Offset | | | | | 140 ft Main Boom Length 45° Fly Offset | | | | |
|---|-----------------|-------|-------|-------|---|-----------------|-------|-------|-------|
| Radius (ft) | Fly Length (ft) | | | | Radius (ft) | Fly Length (ft) | | | |
| | 35 | 58 | 74 | 90 | | 35 | 58 | 74 | 90 |
| 40 | | | | | 40 | | | | |
| 45 | | | | | 45 | | | | |
| 50 | | | | | 50 | | | | |
| 55 | 10,000 | | | | 55 | | | | |
| 60 | 9,800 | | | | 60 | | | | |
| 65 | 9,700 | | | | 65 | 8,800 | | | |
| 70 | 9,500 | | | | 70 | 8,800 | | | |
| 75 | 9,400 | 5,700 | 4,600 | | 75 | 8,700 | | | |
| 80 | 9,200 | 5,600 | 4,400 | 3,600 | 80 | 8,600 | | | |
| 85 | 9,100 | 5,500 | 4,200 | 3,400 | 85 | 8,600 | 4,900 | 3,700 | |
| 90 | 9,000 | 5,400 | 4,100 | 3,200 | 90 | 8,500 | 4,900 | 3,500 | 2,900 |
| 95 | 8,500 | 5,300 | 3,900 | 3,000 | 95 | 8,400 | 4,800 | 3,400 | 2,700 |
| 100 | 7,600 | 5,200 | 3,700 | 2,900 | 100 | 7,900 | 4,800 | 3,300 | 2,600 |
| 105 | 6,800 | 5,100 | 3,600 | 2,700 | 105 | 7,000 | 4,700 | 3,200 | 2,400 |
| 110 | 6,000 | 5,000 | 3,500 | 2,600 | 110 | 6,200 | 4,700 | 3,100 | 2,300 |
| 115 | 5,300 | 4,900 | 3,300 | 2,400 | 115 | 5,500 | 4,700 | 3,000 | 2,200 |
| 120 | 4,700 | 4,800 | 3,200 | 2,300 | 120 | 4,900 | 4,600 | 2,900 | 2,100 |
| 125 | 4,100 | 4,700 | 3,100 | 2,200 | 125 | 4,300 | 4,500 | 2,800 | 2,000 |
| 130 | 3,600 | 4,500 | 3,000 | 2,100 | 130 | 3,700 | 4,400 | 2,700 | 1,900 |
| 135 | 3,100 | 4,000 | 2,900 | 2,000 | 135 | 3,200 | 4,300 | 2,700 | 1,800 |
| 140 | 2,700 | 3,500 | 2,800 | 1,900 | 140 | | 3,700 | 2,600 | 1,800 |
| 145 | 2,300 | 3,100 | 2,800 | 1,800 | 145 | | 3,300 | 2,600 | 1,700 |
| 150 | 1,900 | 2,700 | 2,600 | 1,700 | 150 | | 2,800 | 2,500 | 1,600 |
| 155 | 1,500 | 2,300 | 2,200 | 1,700 | 155 | | 2,400 | 2,400 | 1,600 |
| 160 | | 1,900 | 1,900 | 1,600 | 160 | | 2,000 | 2,100 | 1,500 |
| 165 | | 1,600 | 1,500 | 1,500 | 165 | | | 1,700 | 1,500 |
| 170 | | 1,300 | 1,200 | 1,300 | 170 | | | 1,300 | 1,400 |
| 175 | | 900 | 900 | 1,000 | 175 | | | | 1,100 |



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28,800 lb Counterweight - Fully Extended Outriggers - 360° Rotation
(All Capacities Are Listed In Pounds)

| 140 ft Main Boom Length 2° Fly Offset | | | | | 140 ft Main Boom Length 15° Fly Offset | | | | |
|--|-----------------|-------|-------|-------|---|-----------------|-------|-------|-------|
| Radius (ft) | Fly Length (ft) | | | | Radius (ft) | Fly Length (ft) | | | |
| | 35 | 58 | 74 | 90 | | 35 | 58 | 74 | 90 |
| 35 | 12,100 | | | | 35 | | | | |
| 40 | 12,100 | | | | 40 | | | | |
| 45 | 12,100 | 8,500 | | | 45 | 11,500 | | | |
| 50 | 12,100 | 8,400 | 6,600 | | 50 | 11,400 | | | |
| 55 | 12,100 | 8,300 | 6,600 | 5,200 | 55 | 11,200 | | | |
| 60 | 12,100 | 8,100 | 6,600 | 5,200 | 60 | 11,000 | 7,200 | | |
| 65 | 11,900 | 8,000 | 6,600 | 5,200 | 65 | 10,800 | 7,000 | 6,300 | |
| 70 | 11,700 | 7,800 | 6,600 | 5,200 | 70 | 10,600 | 6,800 | 6,000 | 4,800 |
| 75 | 11,500 | 7,700 | 6,600 | 5,100 | 75 | 10,400 | 6,700 | 5,700 | 4,500 |
| 80 | 11,300 | 7,500 | 6,400 | 4,800 | 80 | 10,200 | 6,500 | 5,400 | 4,200 |
| 85 | 11,000 | 7,300 | 6,000 | 4,500 | 85 | 10,000 | 6,300 | 5,100 | 4,000 |
| 90 | 10,500 | 7,100 | 5,700 | 4,200 | 90 | 9,700 | 6,200 | 4,900 | 3,700 |
| 95 | 10,000 | 6,900 | 5,400 | 4,000 | 95 | 9,400 | 6,000 | 4,600 | 3,500 |
| 100 | 9,000 | 6,700 | 5,100 | 3,700 | 100 | 9,000 | 5,900 | 4,400 | 3,300 |
| 105 | 8,100 | 6,500 | 4,900 | 3,500 | 105 | 8,500 | 5,700 | 4,200 | 3,100 |
| 110 | 7,300 | 6,300 | 4,700 | 3,300 | 110 | 7,700 | 5,600 | 4,100 | 3,000 |
| 115 | 6,600 | 6,000 | 4,500 | 3,200 | 115 | 7,000 | 5,500 | 3,900 | 2,800 |
| 120 | 6,000 | 5,800 | 4,300 | 3,000 | 120 | 6,300 | 5,300 | 3,700 | 2,700 |
| 125 | 5,400 | 5,600 | 4,100 | 2,800 | 125 | 5,700 | 5,100 | 3,600 | 2,500 |
| 130 | 4,800 | 5,300 | 3,900 | 2,700 | 130 | 5,100 | 4,900 | 3,500 | 2,400 |
| 135 | 4,400 | 4,800 | 3,800 | 2,500 | 135 | 4,600 | 4,700 | 3,300 | 2,300 |
| 140 | 3,900 | 4,300 | 3,600 | 2,400 | 140 | 4,100 | 4,600 | 3,200 | 2,200 |
| 145 | 3,500 | 3,900 | 3,500 | 2,300 | 145 | 3,700 | 4,200 | 3,100 | 2,100 |
| 150 | 3,100 | 3,500 | 3,400 | 2,200 | 150 | 3,300 | 3,800 | 3,000 | 2,000 |
| 155 | 2,700 | 3,100 | 3,000 | 2,100 | 155 | 2,900 | 3,400 | 2,900 | 1,900 |
| 160 | 2,400 | 2,800 | 2,600 | 2,000 | 160 | 2,500 | 3,100 | 2,800 | 1,800 |
| 165 | 2,100 | 2,500 | 2,300 | 1,900 | 165 | 2,200 | 2,700 | 2,600 | 1,700 |
| 170 | | 2,200 | 2,000 | 1,800 | 170 | | 2,400 | 2,300 | 1,600 |
| 175 | | 1,900 | 1,800 | 1,700 | 175 | | 2,100 | 2,000 | 1,600 |
| 180 | | 1,700 | 1,500 | 1,500 | 180 | | 1,800 | 1,700 | 1,500 |
| 185 | | 1,400 | 1,200 | 1,200 | 185 | | 1,500 | 1,400 | 1,400 |
| 190 | | 1,200 | 1,000 | 1,000 | 190 | | | 1,200 | 1,200 |
| 195 | | | | | 195 | | | 900 | 900 |



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28,800 lb Counterweight - Fully Extended Outriggers - 360° Rotation
(All Capacities Are Listed In Pounds)

| 140 ft Main Boom Length 30° Fly Offset | | | | | 140 ft Main Boom Length 45° Fly Offset | | | | |
|---|-----------------|-------|-------|-------|---|-----------------|-------|-------|-------|
| Radius (ft) | Fly Length (ft) | | | | Radius (ft) | Fly Length (ft) | | | |
| | 35 | 58 | 74 | 90 | | 35 | 58 | 74 | 90 |
| 40 | | | | | 40 | | | | |
| 45 | | | | | 45 | | | | |
| 50 | | | | | 50 | | | | |
| 55 | 10,000 | | | | 55 | | | | |
| 60 | 9,800 | | | | 60 | | | | |
| 65 | 9,700 | | | | 65 | 8,800 | | | |
| 70 | 9,500 | | | | 70 | 8,800 | | | |
| 75 | 9,400 | 5,700 | 4,600 | | 75 | 8,700 | | | |
| 80 | 9,200 | 5,600 | 4,400 | 3,600 | 80 | 8,600 | | | |
| 85 | 9,100 | 5,500 | 4,200 | 3,400 | 85 | 8,600 | 4,900 | 3,700 | |
| 90 | 9,000 | 5,400 | 4,100 | 3,200 | 90 | 8,500 | 4,900 | 3,500 | 2,900 |
| 95 | 8,800 | 5,300 | 3,900 | 3,000 | 95 | 8,400 | 4,800 | 3,400 | 2,700 |
| 100 | 8,500 | 5,200 | 3,700 | 2,900 | 100 | 8,200 | 4,800 | 3,300 | 2,600 |
| 105 | 8,200 | 5,100 | 3,600 | 2,700 | 105 | 8,000 | 4,700 | 3,200 | 2,400 |
| 110 | 8,000 | 5,000 | 3,500 | 2,600 | 110 | 7,700 | 4,700 | 3,100 | 2,300 |
| 115 | 7,300 | 4,900 | 3,300 | 2,400 | 115 | 7,500 | 4,700 | 3,000 | 2,200 |
| 120 | 6,600 | 4,800 | 3,200 | 2,300 | 120 | 6,700 | 4,600 | 2,900 | 2,100 |
| 125 | 5,900 | 4,700 | 3,100 | 2,200 | 125 | 6,000 | 4,500 | 2,800 | 2,000 |
| 130 | 5,300 | 4,500 | 3,000 | 2,100 | 130 | 5,400 | 4,400 | 2,700 | 1,900 |
| 135 | 4,800 | 4,400 | 2,900 | 2,000 | 135 | 4,800 | 4,300 | 2,700 | 1,800 |
| 140 | 4,300 | 4,300 | 2,800 | 1,900 | 140 | | 4,200 | 2,600 | 1,800 |
| 145 | 3,800 | 4,200 | 2,800 | 1,800 | 145 | | 4,100 | 2,600 | 1,700 |
| 150 | 3,300 | 4,100 | 2,700 | 1,700 | 150 | | 4,000 | 2,500 | 1,600 |
| 155 | 2,900 | 3,700 | 2,600 | 1,700 | 155 | | 3,800 | 2,500 | 1,600 |
| 160 | | 3,300 | 2,600 | 1,600 | 160 | | 3,300 | 2,500 | 1,500 |
| 165 | | 2,900 | 2,500 | 1,500 | 165 | | 2,900 | 2,500 | 1,500 |
| 170 | | 2,500 | 2,500 | 1,500 | 170 | | | 2,500 | 1,400 |
| 175 | | 2,200 | 2,200 | 1,400 | 175 | | | 2,200 | 1,400 |
| 180 | | 1,800 | 1,800 | 1,400 | 180 | | | | 1,400 |
| 185 | | | 1,500 | 1,400 | 185 | | | | 1,400 |
| 190 | | | 1,300 | 1,300 | 190 | | | | 1,400 |
| 195 | | | 1,000 | 1,100 | 195 | | | | |



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