

Technical Data

Specifications & Capacities

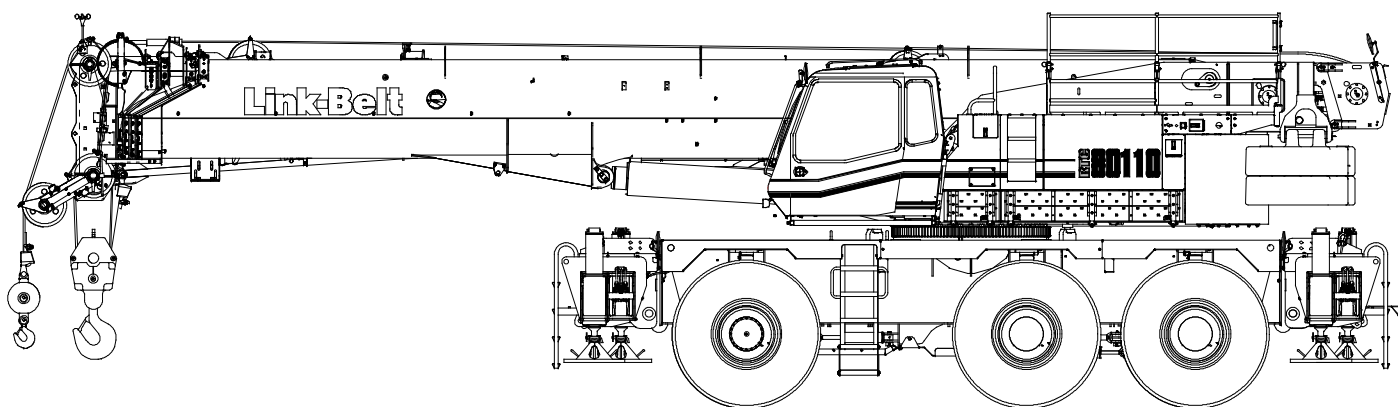
RTC 80110

Series II

Telescopic Boom Rough Terrain Crane

110 US ton

100 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.

Table Of Contents

Boom, Attachments, and Upper Structure	1
Boom	1
Boom Head	1
Boom Elevation	1
Auxiliary Lifting Sheave – Optional	1
Hook Blocks and Balls – Optional	1
Fly – Optional	1
Fly Extensions – Optional	1
Operator’s Cab and Controls	1
Swing	3
Electrical	3
Load Hoist System	4
Load Hoist Performance	4
2M Main and Optional Auxiliary Winches	4
Engine	4
Drive System	5
Fuel Tank	5
Hydraulic System	5
Pump Drive	5
Counterweight	5
Carrier	6
General	6
Outriggers	6
Steering and Wheel Drive Motors	6
Suspension	6
Tires and Wheels	6
Brakes	6
Electrical	6
Carrier Speeds and Gradeability	6
Hydraulic System	6
Axle Loads – English	7
Axle Loads – Metric	8
Transport Configuration and Weights	9
General Dimensions	10
Working Range Diagram	11
Boom Extend Modes	12
Main Boom Lift Capacity Charts – Standard	13
26,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation	13
Fly Attachment Lift Capacity Charts – Optional	14
26,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation	14
Main Boom + 10 ft Manual Offset Fly (2°, 15°, 30°, & 45° Offsets)	14
150 ft Main Boom Length + 31 ft & 55 ft Manual Offset Fly	15
150 ft Main Boom Length + 73 ft & 91 ft Manual Offset Fly	16

This Page Intentionally Blank

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
- 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 galvaneal 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

Air Conditioning – Integral with cab heating system utilizing the same ventilation outlets

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
- Forward/Neutral/Reverse direction switch

Panel mounted switches for:

- Travel park brake
- Steer mode selector
- 2/6 wheel drive/range selector

- Hazard flasher

Panel mounted indicator/warning lights for:

- Travel park brake
- Service brake
- Turn signals
- Case filter restriction
- Charge filter restriction
- Engine overspeed
- Rear wheel offset
- Emergency steer – optional

Armrest Controls – Two dual axis electronic joystick controllers or optional single axis electronic controllers for:

- Swing
- Boom hoist
- Main front winch
- Auxiliary rear winch – optional
- Drum rotation indication
- Drum rotation indicator activation switch
- Winch high/low speed disable switch(es)
- Cab heater and A/C controls
- Throttle lock/unlock switch
- Throttle set switch
- Cab tilt switch
- Warning horn button
- Swing park brake
- Telescope override switches

Foot Controls

- Boom Telescope
- Swing brake
- Engine throttle
- Travel brake

Right Front Console – Controls and indicators for:

- Warning horn button
- Function disable switch
- Cab floodlights switch
- Console dimmer switch
- 2–12 volt accessory outlet (Switched & Unswitched)
- Emergency engine shutdown
- Windshield wiper/washer switch
- Ignition switch
- Programmable heater
- Ignition indication light
- Boom floodlights switch – optional
- Rotating beacon/strobe light switch – optional

Cab Instrumentation – Ergonomically positioned LCD display, CANBUS instrumentation for crane operation including:

- Tachometer
- Engine water temperature
- Fuel level
- Hydraulic oil temperature
- Travel circuit temperature
- Stop engine
- Check engine
- Wait to start
- High exhaust temperature light
- DPF regeneration light
- Regeneration Disabled light
- Swing park brake light
- Fine metering function set & %
- Engine speed
- Engine oil pressure
- Battery voltage
- Fuel rate (gal/hr)
- Engine load
- Third wrap indicator activation & setup – optional
- Engine Diagnostics
- Electronic Control Diagnostics
- Outrigger level indicator
- DPF regeneration inhibit switch
- DPF regeneration initiate switch

Diagnostic Center – Located on the left side of the front panel below the windshield

- 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
 - 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)
 - Outrigger position sensing
 - Diagnostics

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 1.5 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 – optional

Electrical Center

- RCL by-pass switch
- Hour meter
- Battery disconnect switches
- 3 batteries provide 12 volt operation and starting

■ 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	kg	ft/min	m/min	ft/min	m/min	ft	m	ft	m
1	21,022	9 535.4	141	43.0	279	85.0	125	38.1	125	38.1
2	18,985	8 611.5	156	47.5	310	94.5	138	42.0	263	80.2
3	17,280	7 838.0	172	52.4	340	103.6	152	46.3	415	126.5
4	15,868	7 197.6	187	57.0	370	112.8	165	50.3	588	179.2
5	14,669	6 653.7	202	61.6	400	121.9	179	54.6	759	231.3
6	13,639	6 186.5	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

Third wrap indicator – optional – 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.

■ Engine

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

■ Drive System

Hydrostatic type consisting of two variable speed piston pumps supplying hydraulic power to six hydraulic cam lobe wheel drive motors computer controlled for smooth and reliable operation.

■ Fuel Tank

One 90 gal (340.6L) 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 gear pump for the boom hoist, telescope, and charge circuits.
- Two, closed-loop piston pumps serve as travel pumps. these two pumps supply hydraulic power to the wheel motors.
- Two, closed-loop piston pumps are mounted to the rear of the two travel pumps. The left pump drives the front winch and the right pump drives the optional rear winch.
- One, pressure compensated piston pump mounted to the rear of the left winch pump supplies hydraulic power to the outrigger, counterweight removal (optional), oscillation, and travel brake circuits.
- One, single section gear pump mounted to the rear of the right side winch pump supplies hydraulic power to the swing and steering circuits.
- One, single section gear pump mounted to the engine front gear train accessory drive supplies hydraulic power to the hydraulic system cooling fan motor.

Hydraulic Reservoir – 255 gal (96.5L) capacity equipped with sight level gauge. Diffuser built in for deaeration. Magnetic drain plug and large internal magnet

Filtration

- One, 7-micron filter located inside hydraulic reservoir, accessible for easy replacement
- One, 7-micron charge filter located next to the reservoir with an in-cab indicator light
- Two, 10-micron pressure filters located next to the reservoir with change indicators
- Three, 100 mesh suction strainers located inside the hydraulic reservoir

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

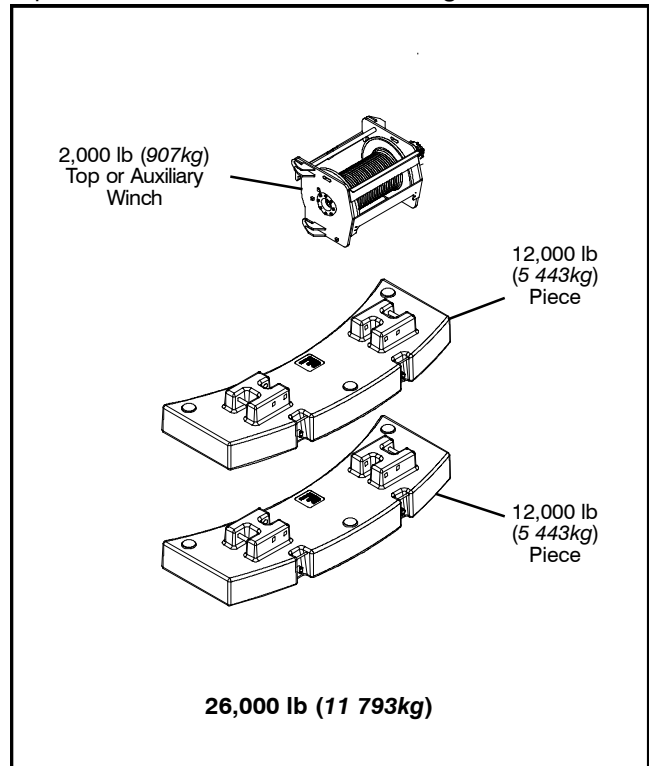
■ Pump Drive

All pumps except the hydraulic system, cooling fan, drive pump are mounted on the pump drive gearbox and mechanically driven by the diesel engine.

■ Counterweight

Total of 26,000 lb (11 793kg) consisting of two removable counterweights pinned to the upper and auxiliary winch/counterweight with capacities for 0 lb (0kg), 14,000 lb (6 350kg), and 26,000 lb (11 793kg) configurations.

- 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

- 9 ft 11 in (3.02m) wide
- 16 ft 1 in (4.90m) wheelbase (centerline of first axle to centerline of third 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 removable, double box, front and rear pinned to carrier frame. Hydraulic outrigger pin removal – optional.

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, 26 in (0.66m) diameter, steel pontoons with contact area of 539 in² (3 477cm²) can be stored for road travel in storage racks on the carrier.

Main Jack Reaction – 132,000 lb (59 874kg) force and 245 psi (1 689kPa) ground bearing pressure.

Steering and Wheel Drive Motors

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

Drive – Three modes: 6 x 2 high, 6 x 2 low, and 6 x 6 for off highway travel

Front Drive Motors – Steered, driven for 6 x 2 and 6 x 6

Rear Drive Motors – Steered, non-driven for 6 x 2 and steered, driven for 6 x 6

Suspension

Front – Double "A" arms connected to oscillation cylinders that lockout when the upper structure rotates 3° past centerline

Left Rear – Center and rear wheels mounted on double "A" arms connected to oscillation cylinders that lockout when the upper structure rotates 3° past centerline. Oscillation occurs across left center and left rear wheels.

Right Rear – Center and rear wheels mounted on double "A" arms connected to oscillation cylinders that lockout when the upper structure rotates 3° past centerline. Oscillation occurs across right center and right rear wheels.

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

Tires and Wheels

Front and Rear – Six (single) 23.5R25, 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 loaded type, acting on front wheel ends

Electrical

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

Carrier Speeds and Gradeability

Variable Hydrostatic Drive	Speed		Gradeability (@ Peak Torque)	
	Range	mph		km/h
6 WD Low		3	4.8	55
2 WD Low		9	14.5	15
2 WD High		18.5	29.8	6

Based on a gross vehicle weight of 123,000 lb (55 792kg).

Crane operating angle must not exceed 30° (66% grade).

Hydraulic System

Filtration – One, 60-micron, full flow, line filter in the wheel motor case drain circuit. Filter includes an in-cab change indicator. Accessible for easy filter replacement.

Axle Loads – English

Base machine with full tank of fuel and 26,000 lb of counterweight	Gross Vehicle Weight ⁽¹⁾	Upper Facing Front		Upper Facing Rear	
		Front Axle	Rear Axle Group	Front Axles	Rear Axle Group
	lb	lb	lb	lb	lb
	129,442	39,461	89,981	58,464	70,978
Operator in cab	250	161	89	31	219
Hydraulic outrigger pin removal	206	79	127	79	127
Remove outrigger boxes and beams	-17,139	-6,633	-10,505	-6,542	-10,597
Pintle hook, front	13	20	-7	20	-7
Pintle hook, rear	13	-10	23	-10	23
Hydraulic counterweight removal	292	-151	443	-125	167
Remove 12,000 lb counterweight	-12,093	6,453	-18,546	-15,750	3,657
Remove 12,000 lb counterweight	-12,093	6,453	-18,546	-15,750	3,657
Hoist drum follower – main	99	-49	148	-126	-26
Auxiliary winch with 500 ft of wire rope – winch replaces auxiliary counterweight	798	-446	1,244	-1,059	-262
Remove auxiliary winch with 500 ft of wire rope – for two winch configuration only	-2,628	1,677	-4,306	-3,698	1,069
Hoist drum follower – auxiliary	101	-75	176	153	-52
Remove 850 ft of wire rope – main winch	-1,451	544	-1,994	-1,659	208
Remove 500 ft of wire rope – auxiliary winch	-863	494	-1,356	-1,157	294
Substitute 500 ft of wire rope with 850 ft of wire rope – auxiliary winch	588	-337	925	789	-201
360° mechanical swing lock	140	57	83	50	90
Air conditioning	86	42	44	24	62
Auxiliary lifting sheave	107	311	-204	-229	336
Boom floodlight	7	18	-11	-13	20
Fly mounting brackets to boom base for fly options	290	508	-218	-285	575
31–55 ft offsettable, two piece bi-fold fly – stowed	2,730	4,460	-1,730	-2,362	5,092
10–31–55 ft offsettable, three piece bi-fold fly – stowed	3,359	5,876	-2,517	-3,293	6,652
12 ton swivel hook ball (stowed at front/rear bumper)	722	1,153	-431	-598	1,320
12 ton swivel hook ball (stowed at boom head)	722	2,016	-1,294	-1,461	2,183
35 ton 1–sheave hook block (stowed at front/rear bumper)	1,100	1,756	-656	-911	2,011
35 ton 1–sheave hook block (stowed at boom head)	1,100	3,072	-1,972	-2,226	3,326
80 ton 5–sheave hook block (stowed at front/rear bumper)	1,411	2,253	-842	-1,168	2,579
80 ton 5–sheave hook block (stowed at boom head)	1,411	3,940	-2,529	-2,855	4,266
100 ton 6–sheave hook block (stowed at front/rear bumper)	1,750	2,794	-1,044	-1,449	3,199
100 ton 6–sheave hook block (stowed at boom head)	1,750	4,886	-3,136	-3,541	5,291
140 ton 7–sheave hook block (stowed at front/rear bumper)	2,394	3,822	-1,428	-1,982	4,376
140 ton 7–sheave hook block (stowed at boom head)	2,394	6,685	-4,291	-4,844	7,238
Tire	Maximum Load @ 20 mph				
23.5R25	57,330 lb				

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

Note: All weights are $\pm 3\%$.

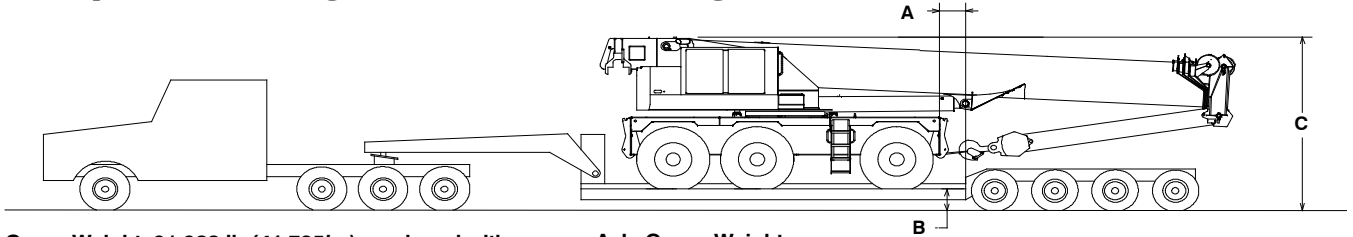
Axle Loads – Metric

Base machine with full tank of fuel and 11 793.4kg of counterweight	Gross Vehicle Weight ⁽¹⁾	Upper Facing Front		Upper Facing Rear	
		Front Axle	Rear Axle Group	Front Axles	Rear Axle Group
	kg	kg	kg	kg	kg
	58 714	17 899	40 815	26 519	32 195
Operator in cab	113	73	40	14	99
Hydraulic outrigger pin removal	93	36	58	36	58
Remove outrigger boxes and beams	-7 774	-3 009	-4 765	-2 967	-4 807
Pintle hook, front	6	9	-3	9	-3
Pintle hook, rear	6	-4	10	-4	10
Hydraulic counterweight removal	132	-68	201	-57	76
Remove 5 443.1kg counterweight	-5 485	2 927	-8 412	-7 144	1 659
Remove 5 443.1kg counterweight	-5 485	2 927	-8 412	-7 144	1 659
Hoist drum follower – main	45	-22	67	57	-12
Auxiliary winch with 152.4m of wire rope – winch replaces auxiliary counterweight	362	-202	564	480	-119
Remove auxiliary winch with 152.48m of wire rope – for two winch configuration only	-1 192	761	-1 953	-1 677	485
Hoist drum follower – auxiliary	46	-34	80	69	-23
Remove 259.0kg of wire rope – main winch	-658	247	-905	-752	94
Remove 152.4m of wire rope – auxiliary winch	-391	224	-615	-525	134
Substitute 152.4m of wire rope with 259.0kg of wire rope – auxiliary winch	267	-153	419	358	-91
360° mechanical swing lock	64	26	37	23	41
Air conditioning	39	19	20	11	28
Auxiliary lifting sheave	49	141	-93	-104	152
Boom floodlight	3	8	-5	-6	9
Fly mounting brackets to boom base for fly options	132	231	-99	-129	261
9.4 – 16.7m offsettable, two piece bi-fold fly – stowed	1 238	2 023	-785	-1 071	2 309
3.0–9.4 – 16.7m offsettable, three piece bi-fold fly – stowed	1 524	2 665	-1 142	-1 494	3 017
10.8mt swivel hook ball (stowed at front/rear bumper)	327	523	-196	-271	599
10.8mt swivel hook ball (stowed at boom head)	327	914	-587	-663	990
31.7mt 1–sheave hook block (stowed at front/rear bumper)	499	797	-298	-413	912
31.7mt 1–sheave hook block (stowed at boom head)	499	1 393	-895	-1 010	1 509
72.5mt 5–sheave hook block (stowed at front/rear bumper)	640	1 022	-382	-530	1 170
72.5mt 5–sheave hook block (stowed at boom head)	640	1 787	-1 147	-1 295	1 935
90.7mt 6–sheave hook block (stowed at front/rear bumper)	794	1 267	-474	-657	1 451
90.7mt 6–sheave hook block (stowed at boom head)	794	2 216	-1 422	-1 606	2 400
127.0mt 7–sheave hook block (stowed at front/rear bumper)	1 086	1 734	-648	-899	1 985
127.0mt 7–sheave hook block (stowed at boom head)	1 086	3 032	-1 946	-2 197	3 283
Tire	Maximum Load @ 32.2km/h				
23.5R25	26 004kg				

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

Note: All weights are ±3%.

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

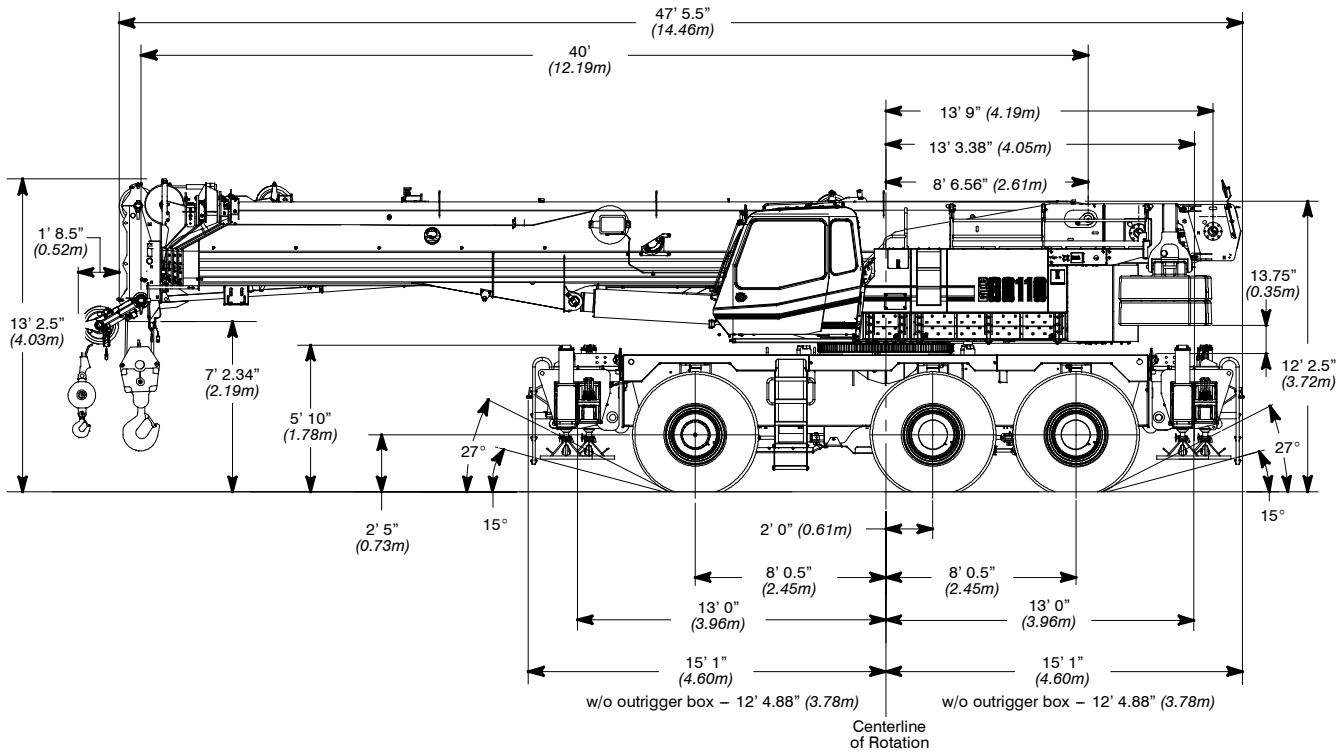
Axle Group Weights

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)

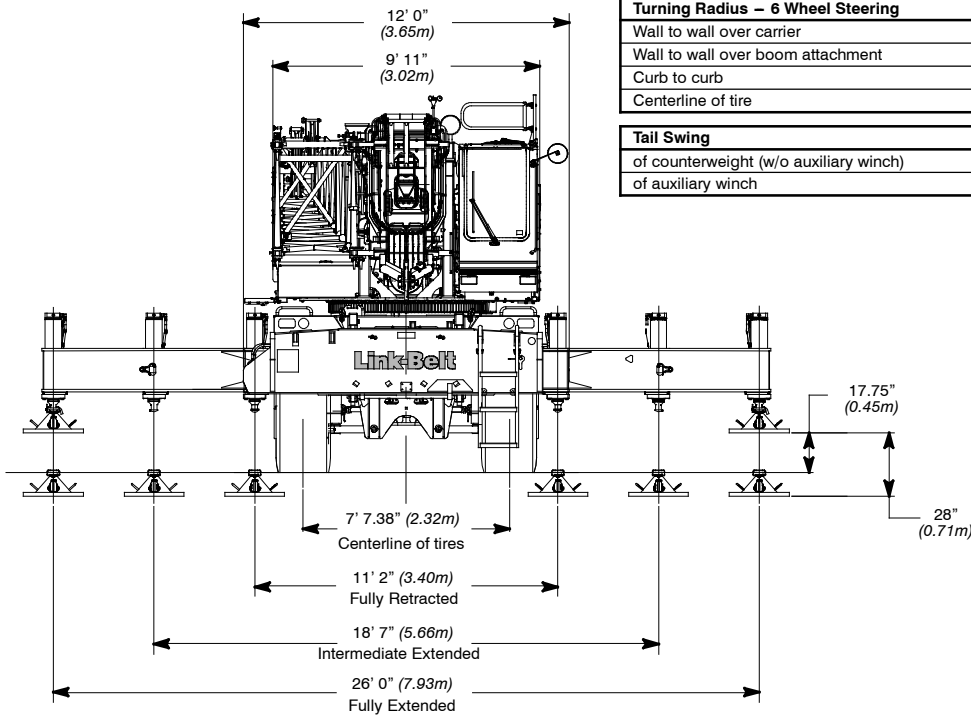
General Dimensions



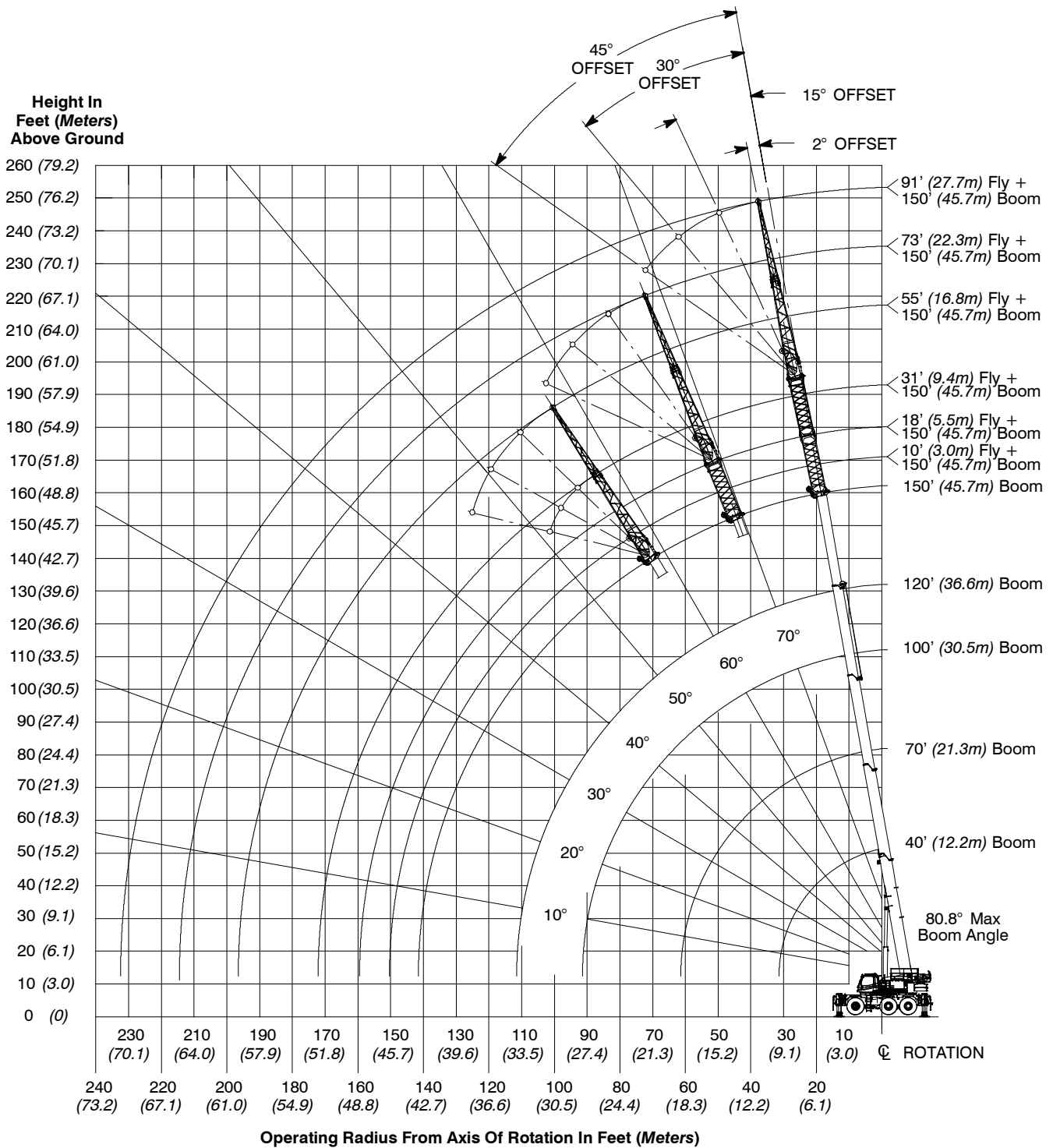
Turning Radius – 2 Wheel Steering		English	Metric
Wall to wall over carrier		44' 10.3"	13.67m
Wall to wall over boom attachment		55'	16.76m
Curb to curb		41' 4"	12.59m
Centerline of tire		40' 4"	12.29m

Turning Radius – 6 Wheel Steering		English	Metric
Wall to wall over carrier		25' 5"	7.75m
Wall to wall over boom attachment		37' 7.3"	11.46m
Curb to curb		21' 9"	6.63m
Centerline of tire		20' 9"	6.32m

Tail Swing		English	Metric
of counterweight (w/o auxiliary winch)		13' 9"	4.19m
of auxiliary winch		15' 1"	4.60m



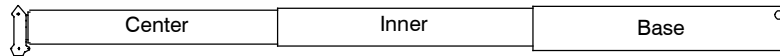
Working Range Diagram



Boom Extend Modes

Boom Mode “Amax¹”

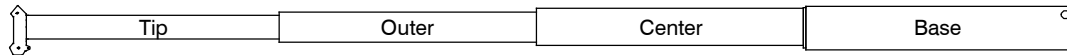
Inner and center sections telescope simultaneously



Telescope Length – ft (m)		Boom Length – ft (m)
0 (0)	0 (0)	40 (12.2)
5.0 (1.5)	5.0 (1.5)	50 (15.2)
10.0 (3.0)	10.0 (3.0)	60 (18.3)
15.0 (4.6)	15.0 (4.6)	70 (21.3)
20.0 (6.1)	20.0 (6.1)	80 (24.4)
25.0 (7.6)	25.0 (7.6)	90 (27.4)
27.5 (8.4)	27.5 (8.4)	95 (29.0)

Boom Mode “Amax²”

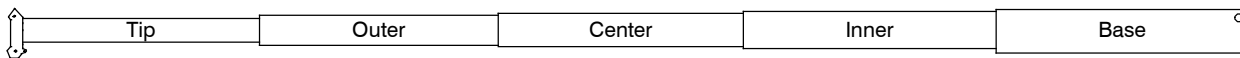
Center, outer, and tip sections telescope simultaneously



Telescope Length – ft (m)			Boom Length – ft (m)
0 (0)	0 (0)	0 (0)	40 (12.2)
3.33 (1.0)	3.33 (1.0)	3.33 (1.0)	50 (15.2)
6.66 (2.0)	6.66 (2.0)	6.66 (2.0)	60 (18.3)
10.00 (3.0)	10.00 (3.0)	10.00 (3.0)	70 (21.3)
13.33 (4.1)	13.33 (4.1)	13.33 (4.1)	80 (24.4)
16.66 (5.1)	16.66 (5.1)	16.66 (5.1)	90 (27.4)
20.00 (6.1)	20.00 (6.1)	20.00 (6.1)	100 (30.5)
23.33 (7.1)	23.33 (7.1)	23.33 (7.1)	110 (33.5)
27.50 (8.4)	27.50 (8.4)	27.50 (8.4)	122.5 (37.3)

Boom Mode “Standard”

Inner, center, outer, and tip sections telescope simultaneously



Telescope Length – ft (m)				Boom Length – ft (m)
0 (0)	0 (0)	0 (0)	0 (0)	40 (12.2)
2.5 (0.8)	2.5 (0.8)	2.5 (0.8)	2.5 (0.8)	50 (15.2)
5.0 (1.5)	5.0 (1.5)	5.0 (1.5)	5.0 (1.5)	60 (18.3)
7.5 (2.3)	7.5 (2.3)	7.5 (2.3)	7.5 (2.3)	70 (21.3)
10.0 (3.0)	10.0 (3.0)	10.0 (3.0)	10.0 (3.0)	80 (24.4)
12.5 (3.8)	12.5 (3.8)	12.5 (3.8)	12.5 (3.8)	90 (27.4)
15.0 (4.6)	15.0 (4.6)	15.0 (4.6)	15.0 (4.6)	100 (30.5)
17.5 (5.3)	17.5 (5.3)	17.5 (5.3)	17.5 (5.3)	110 (33.5)
20.0 (6.1)	20.0 (6.1)	20.0 (6.1)	20.0 (6.1)	120 (36.6)
22.5 (6.9)	22.5 (6.9)	22.5 (6.9)	22.5 (6.9)	130 (39.6)
25.0 (7.6)	25.0 (7.6)	25.0 (7.6)	25.0 (7.6)	140 (42.7)
27.5 (8.4)	27.5 (8.4)	27.5 (8.4)	27.5 (8.4)	150 (45.7)

Main Boom Lift Capacity Charts – Standard

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

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

26,000 lb Counterweight – Fully Extended Outriggers – 360° Rotation (All Capacities Are Listed In Pounds)													
Radius (ft)	Main Boom + 10 ft Manual Offset Fly (2°, 15°, 30°, & 45° Offsets)												Radius (ft)
	Boom Length (ft)												
	40	50	60	70	80	90	100	110	120	130	140	150	
10	52,000	52,000											10
12	48,600	49,200	52,000										12
15	47,700	48,300	48,700	52,100	52,100								15
20	46,600	47,200	47,600	47,800	47,700	47,500							20
25	46,100	46,400	46,800	46,900	46,900	46,800	46,500	50,500	51,800				25
30	46,100	46,100	46,200	46,300	46,300	46,200	46,000	45,600	44,600	42,700	31,000	24,200	30
35	46,100	46,100	46,000	45,900	45,800	45,700	45,500	44,200	41,600	39,500	31,000	24,200	35
40	46,100	46,100	46,000	45,800	45,600	45,400	45,200	40,400	37,400	35,500	31,000	24,200	40
45		43,700	43,500	43,300	43,100	43,000	42,900	37,100	33,900	32,100	30,800	24,200	45
50		36,400	36,100	36,000	35,800	35,700	35,600	34,400	30,600	29,000	27,900	24,200	50
55			30,700	30,500	30,300	30,200	30,100	30,100	27,900	26,400	25,300	24,200	55
60			26,300	26,100	26,000	25,800	25,700	25,700	25,400	24,000	23,100	22,200	60
65				22,600	22,400	22,300	22,200	22,100	22,000	22,000	21,100	20,300	65
70				19,700	19,500	19,400	19,300	19,200	19,100	19,000	19,000	18,600	70
75					17,200	17,100	17,000	16,900	16,800	16,800	16,700	16,700	75
80					15,100	15,000	14,900	14,800	14,800	14,700	14,700	14,600	80
85						13,200	13,100	13,000	13,000	12,900	12,900	12,800	85
90						11,700	11,600	11,500	11,400	11,400	11,300	11,300	90
95							10,200	10,100	10,000	10,000	9,900	9,900	95
100							9,000	8,900	8,800	8,800	8,700	8,700	100
105								7,800	7,800	7,700	7,700	7,600	105
110								6,900	6,800	6,700	6,700	6,600	110
115									6,000	5,900	5,800	5,800	115
120									5,200	5,100	5,000	5,000	120
125										4,400	4,300	4,300	125
130										3,700	3,700	3,600	130
135											3,100	3,000	135
140											2,500	2,500	140
145												2,000	145

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.

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

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.

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

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.

This Page Intentionally Blank

This Page Intentionally Blank

This Page Intentionally Blank

Link-Belt Construction Equipment Company Lexington, Kentucky www.linkbelt.com

®Link-Belt is a registered trademark. Copyright 2012. We are constantly improving our products and therefore reserve the right to change designs and specifications.