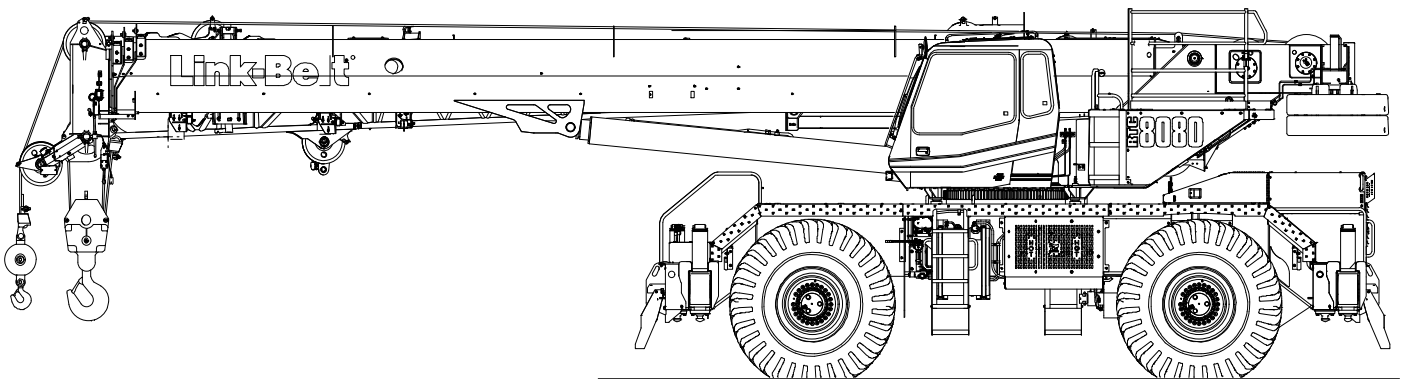


Technical Data

Specifications & Capacities

RTC 8080

Series II
Telescopic Boom Rough Terrain Crane
80 US 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.

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 in² (2 968cm²) 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.

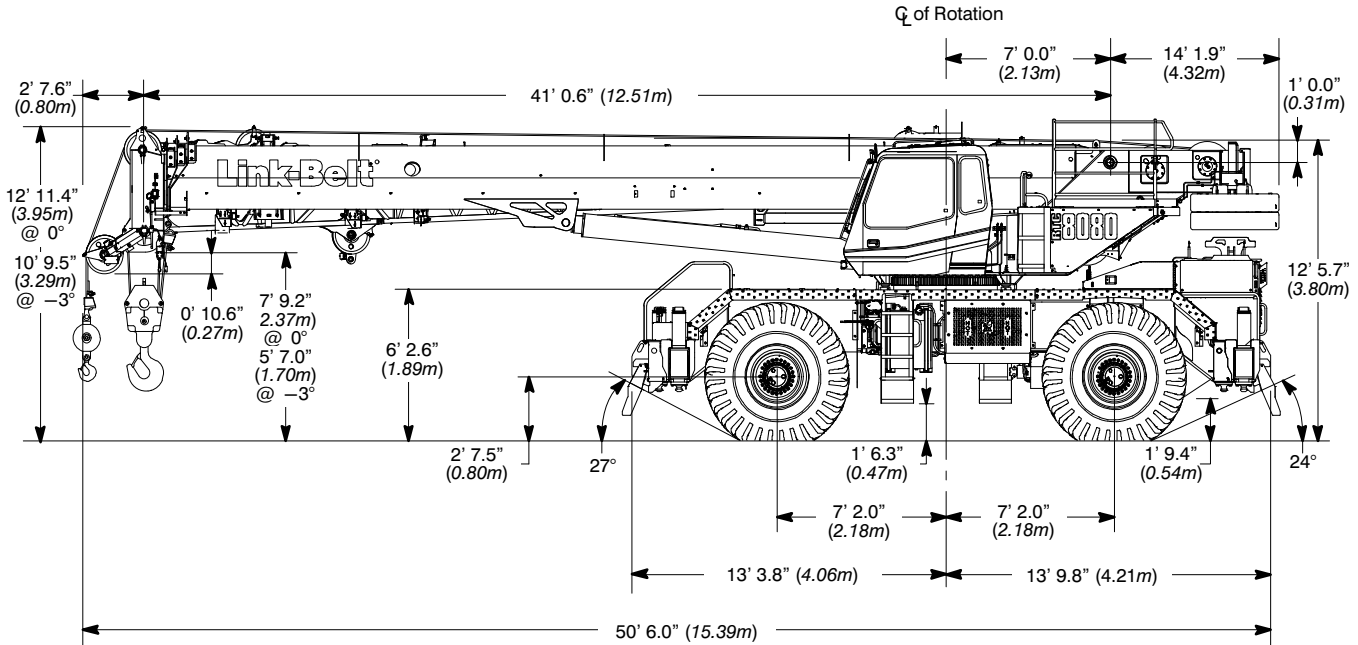
Engine

Specification	Cummins QSB	
Numbers of Cylinders	6	6
Cycle	4	4
Emissions Compliance Level:	Tier 4f/Stage IV ⁽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. 		

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.

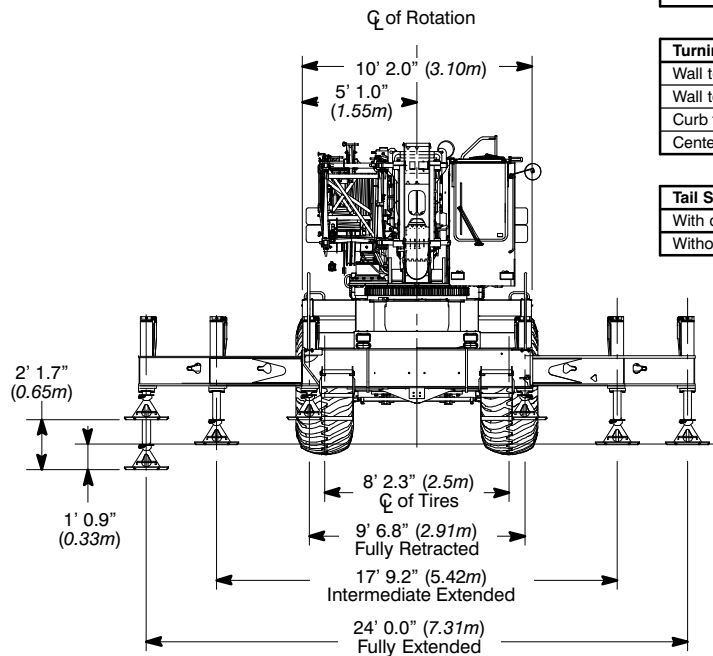
General Dimensions



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

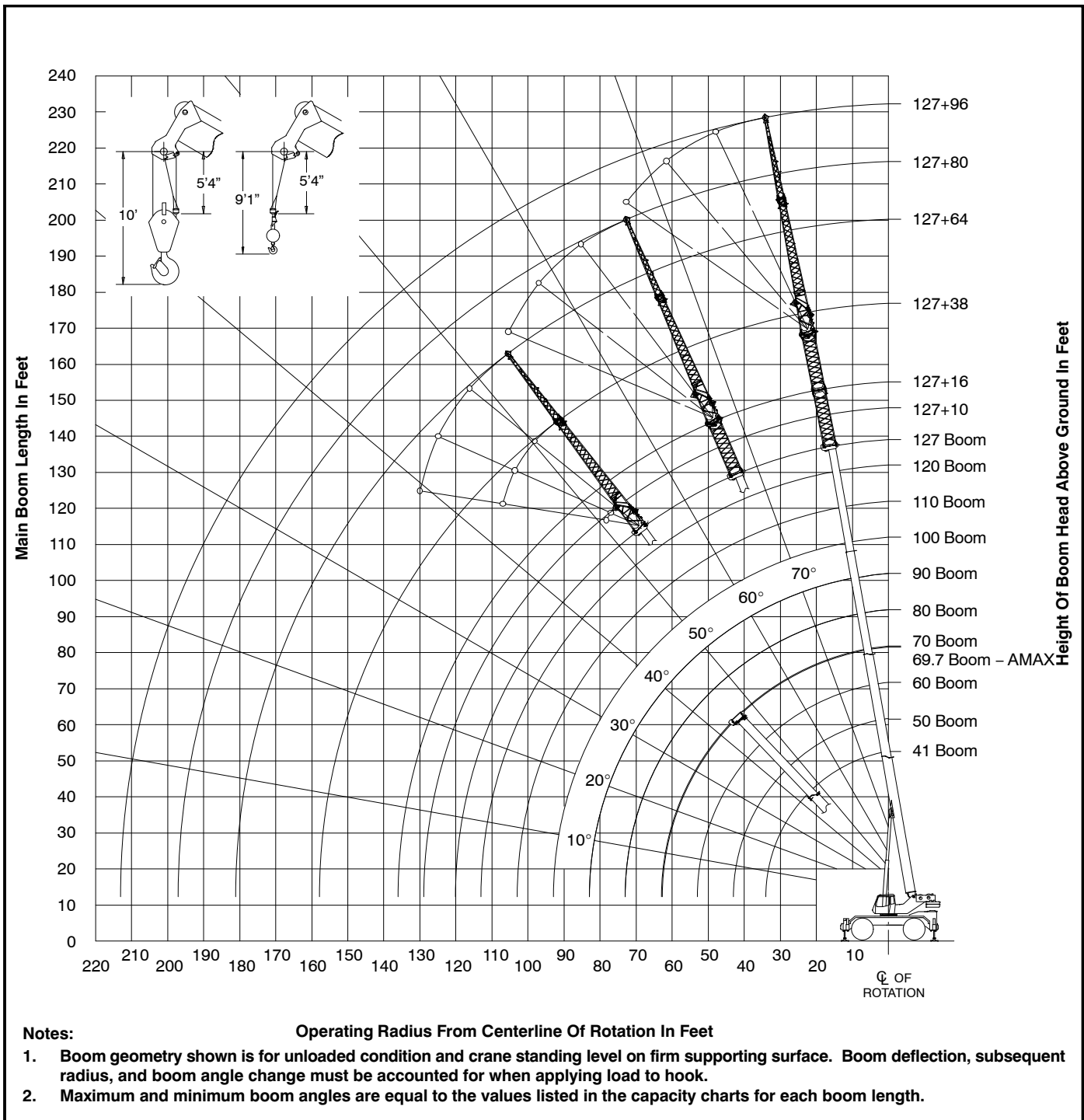
Turning Radius – All Wheel (4x4) Steering	English	Metric
Wall to wall over carrier	27' 10"	8.48m
Wall to wall over boom attachment	38' 11"	11.86m
Curb to curb	26' 0"	7.92m
Centerline of tire	24' 6"	7.47m

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

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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

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