

NBT45-1

Capacity: 45 USt (40,8 t) rating

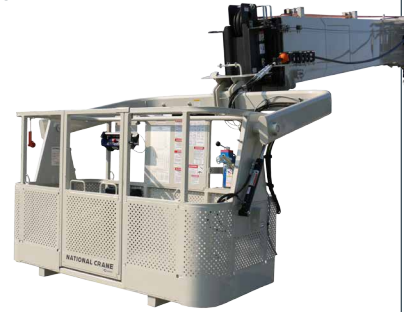
Boom: 161 ft (49,1 m) five-section boom

Max tip height main boom: 169 ft (51,5 m)

Max tip height main boom with jib: 206 ft (62,8 m)

ANSI/SAIA A92.2 & CSA C225 Aerial Lift Configuration:

- Two-person, quick-attach, yoke basket
- Stowage provisions for travel
- Wireless radio remote controls for aerial operation
- Operator presence device and speed selection
- Standard emergency lowering system
- 1200 lb (544 kg) capacity (on main boom)



Several boom length options providing work height capabilities up to 206 ft (62,8 m) with 161 ft (49,1 m) boom option

Several jib and boom length options available

Aerial Lift Package features many utility-focused options such as a platform hydraulic tool circuit and integral wind speed sensor

Optimized lift cylinder offering improved strength, lighter weight, a high-performance seal design and integrated pressure transducers for less leak points

Optional K100™ Synthetic rope for easy reeving

Standard air conditioned cab

Strengthened aluminum decking with integrated outrigger control panels, improved stiffness and less truck axle obstructions

Swing-out, aluminum cab access ladder similar to NBT50 and NBT60 Series

Three-position, out and down style outriggers with lighter polymeric floats

YOU WANT IT ALL. GET IT NOW.

Benefits

Dual-rating versatility

- Fully compliant with both crane and aerial lift industry standards as well as OSHA
- ROI and utilization benefits as a 45 USt (40,8 t) crane and 1200 lb (544 kg) platform capacity aerial lift
- More efficient setup and operation – no test weights, no trial lifts or proof loads
- Ultimate tool for your fleet

Simpler, Smoother, Smarter operation

- Graphical RCL for ease of setup in both crane and aerial modes
- Proportional joystick control in operator cab and fully adjustable single-axis joystick in the aerial lift platform
- Aerial controls feature quick setup features, real-time feedback of operating range and wind speed plus automatic function slowdowns when approaching the extents of the working range
- Standard emergency lowering system with aerial lift package

Class leading 161 ft (49,1 m) boom length

- No need to swing the jib to reach 169 ft (51,5 m) platform working height
- Available jib to work at over 206 ft (62,8 m)

Enhanced Access/Egress and Setup

- Strengthened decking, improved ladders for easier access
- Lighter polymeric outrigger floats are easier to use and less prone to theft when on the job

Field-hardened, NBT40 Series DNA

- Installed base of over 1000 machines and counting
- Proven standard for the boom truck market

Cab controls

- Armrest controls with single-axis hydraulic joystick controllers for main crane functions
- Functions arranged to comply to ASME B30.5
- Hand-held outrigger control pendant with umbilical cable to allow the operator the best view of the outriggers during setup
- Electric outrigger and stabilizer control
- Foot controls for
 - > Engine throttle (electronic)
 - > Dynamic swing brake (hydraulic)
- Standard features include
 - > Heater and air-conditioning
 - > Windshield wiper and washer
 - > Skylight wiper
 - > Cab-mounted work lights



Outriggers

- Horizontal out and down with a 24.6 ft (7,50 m) full-span, 17.5 ft (5,34 m) mid-span and fully retracted span
- Equipped with 20 in (508 mm) diameter lighter weight polymeric outrigger pads
- Equipped with an outrigger in-motion alarm and Outrigger Monitoring System

Winch

- Two-speed high performance planetary winch with drum rotation and last layer indicators
- 450 ft (137,2 m), 5/8 in (16 mm) rotation resistant wire rope which has a 11,250 lb (5102,9 kg) single line pull

Boom and jib options

- Additional main boom lengths available: 103 ft (31,4 m), 127 ft (38,7 m) and 142 ft (43,3 m)
- 31 ft - 55 ft (9,4 m - 16,7 m) jib for 103 ft (31,4 m), 127 ft (38,7 m) and 142 ft (43,3 m) boom options
- 38 ft (11,6 m) fixed length jib available for 161 ft (49,1 m) main boom only



Options and Lift Solutions

- Aerial Lift Package
- Platform hydraulic tool circuit with pressure intensifier manifold
- Five-function radio remotes
- Auxiliary hoist
- Wind speed sensor (operator cab and aerial lift platform)
- K100™ synthetic rope

Working range

103 ft boom



31,39 m
(103 ft)



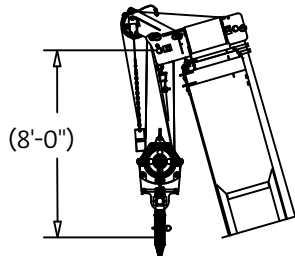
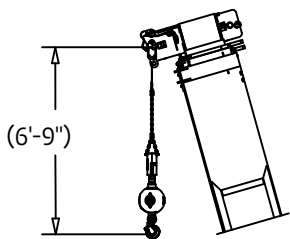
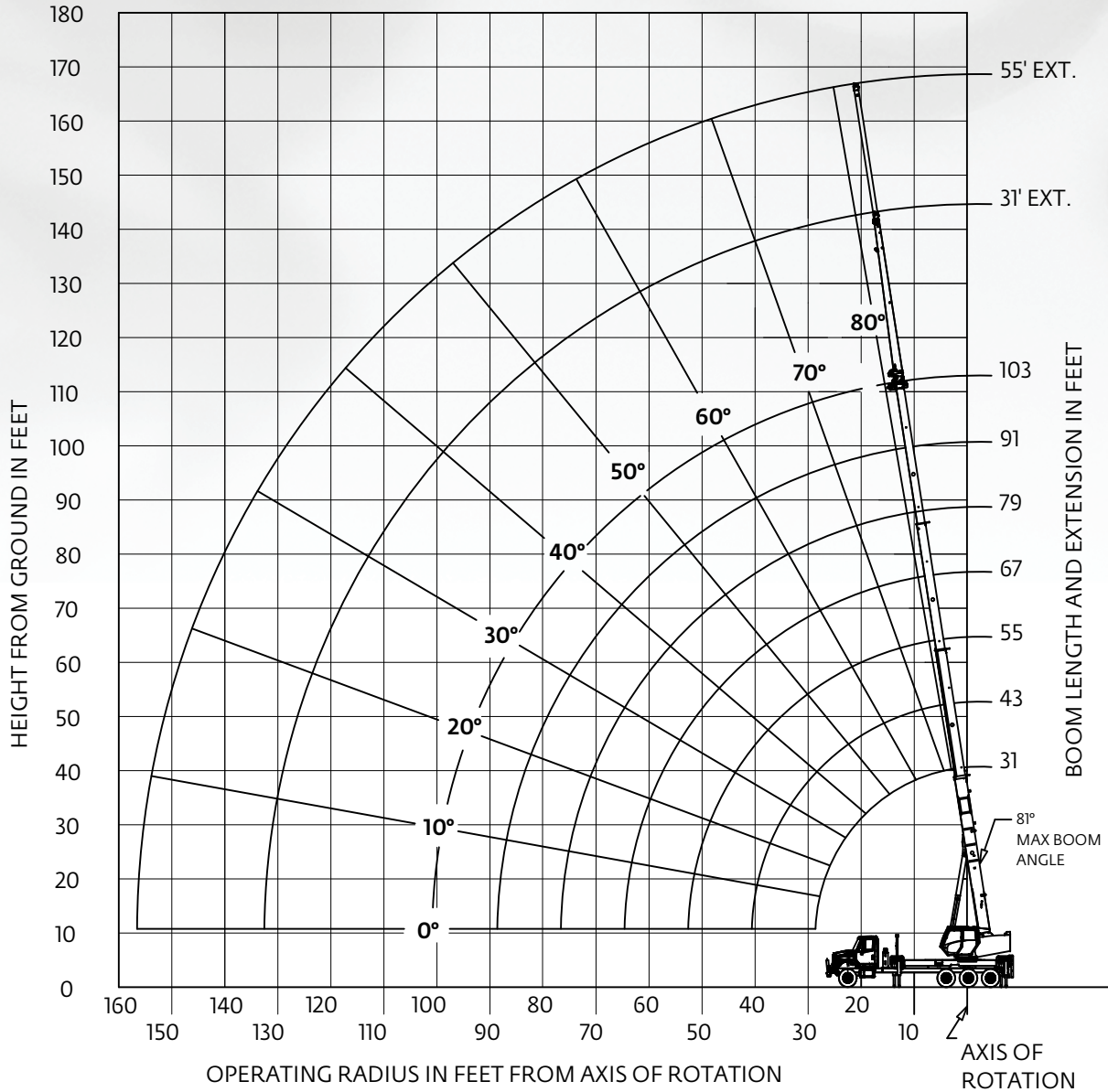
9,45 m - 16,76 m
(31 ft - 55 ft)



7,52 m
(24.7 ft)



360°

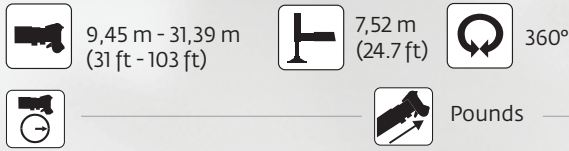


DIMENSIONS ARE FOR LARGEST FURNISHED HOOK BLOCK & HEADACHE BALL, WITH ANTI-TWO BLOCK ACTIVATED.

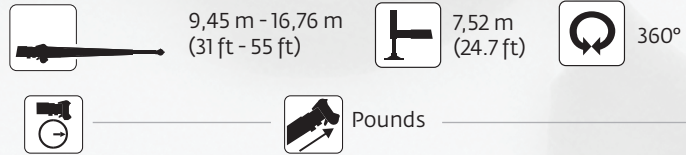
* DRAWING IS TO SHOW THE PHYSICAL REACH OF THE MACHINE. ALWAYS REFER TO LOAD CHART TO SEE WHAT PORTIONS OF THIS RANGE ARE STRUCTURALLY AND STABILITY LIMITED.

Load chart

103 ft boom



Radius in Feet	#01						
	Main Boom Length in Feet						
	31	43-A	55-B	67-C	79-D	91-E	103
7	90,000 (73.6)						
8	82,000 (71.6)	51,000 (76.9)					
10	69,950 (67.6)	51,000 (74.1)	50,000 (78)				
12	58,000 (63.4)	50,000 (71.2)	47,000 (75.8)	37,000 (78.7)			
15	45,700 (56.9)	46,050 (66.9)	40,000 (72.5)	36,000 (76.1)	33,000 (78.7)		
20	33,150 (44.5)	33,550 (59.1)	33,700 (66.8)	33,800 (71.7)	29,000 (75.1)	18,500 (77.3)	18,500 (79.5)
25	25,400 (28)	25,800 (50.7)	26,050 (60.8)	26,150 (66.9)	26,250 (71.2)	18,000 (74.2)	17,500 (76.8)
30		20,650 (40.9)	20,850 (54.4)	21,000 (62)	21,050 (67.2)	17,500 (71)	16,500 (74)
35		16,200 (28.6)	16,450 (47.5)	16,650 (56.9)	16,750 (63.1)	16,200 (67.6)	15,000 (71.1)
40			13,200 (39.6)	13,350 (51.4)	13,450 (58.8)	13,600 (64.1)	13,500 (68.2)
45			10,900 (30)	11,050 (45.5)	11,150 (54.2)	11,150 (60.4)	11,250 (65.1)
50			9000 (17.5)	9200 (39.5)	9300 (49.9)	9400 (56.9)	9500 (62.1)
55				7700 (31.8)	7800 (44.7)	7900 (52.8)	8000 (58.7)
60				6500 (21.7)	6600 (39)	6700 (48.5)	6750 (55.1)
65					5600 (32.4)	5700 (43.9)	5750 (51.4)
70					4750 (24.3)	4850 (38.8)	4900 (47.5)
75					4000 (11.2)	4100 (33.1)	4200 (43.3)
80						3500 (26.3)	3550 (38.8)
85						2950 (16.8)	3000 (33.7)
90							2550 (27.8)
95							2100 (20.2)
100							1700 (4.7)
Minimum boom angle (°) for indicated length (no load)							0
Maximum boom length (ft.) at 0° boom angle (no load)							103



Radius in Feet	31 ft LENGTH	
	#03	
25	8800 (80)	
38	8000 (75)	
49	6500 (70)	
60	5100 (65)	
70	4100 (60)	
79	3300 (55)	
88	2600 (50)	
96	1900 (45)	
103	1350 (40)	
110	950 (35)	
115	650 (30)	
Min. boom angle for indicated length (no load)		25.1°
Max. boom length at 0° boom angle (no load)		103 ft

Radius in Feet	55 ft. LENGTH	
	#04	
29	4000 (80)	
45	3700 (75)	
59	3300 (70)	
73	3000 (65)	
85	2600 (60)	
96	2100 (55)	
103	1700 (50)	
115	1300 (45)	
123	950 (40)	
130	650 (35)	
Min. boom angle for indicated length (no load)		28.2°
Max. boom length at 0° boom angle (no load)		103 ft

NOTE: () Boom angles are in degrees.
#RCL operating code. Refer to RCL manual for operating instructions.

Boom Angle	Lifting Capacities at Zero Degree Boom Angle						
	Main Boom Length in Feet						
	31	43-A	55-B	67-C	79-D	91-E	103
0°	21,850 (28.5)	13,150 (40.5)	8450 (52.5)	5650 (64.5)	3850 (76.5)	2650 (88.5)	1650 (100.5)

NOTE: () Reference radii in feet. 80101796

Rated Load Reductions from main boom capacity when lifting over main boom nose with :							
tele. erected (retracted)	2300	2150	2000	1950	1900	1850	1800
31' off. erected at 0° offset	1800	1700	1550	1500	1450	1450	1400

NOTE: () Boom angles are in degrees.
#RCL operating code. Refer to RCL manual for operating instructions.

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Working range

127 ft boom



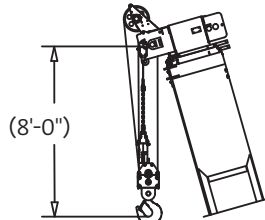
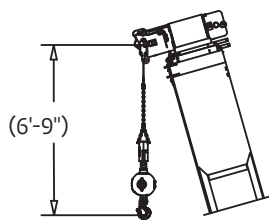
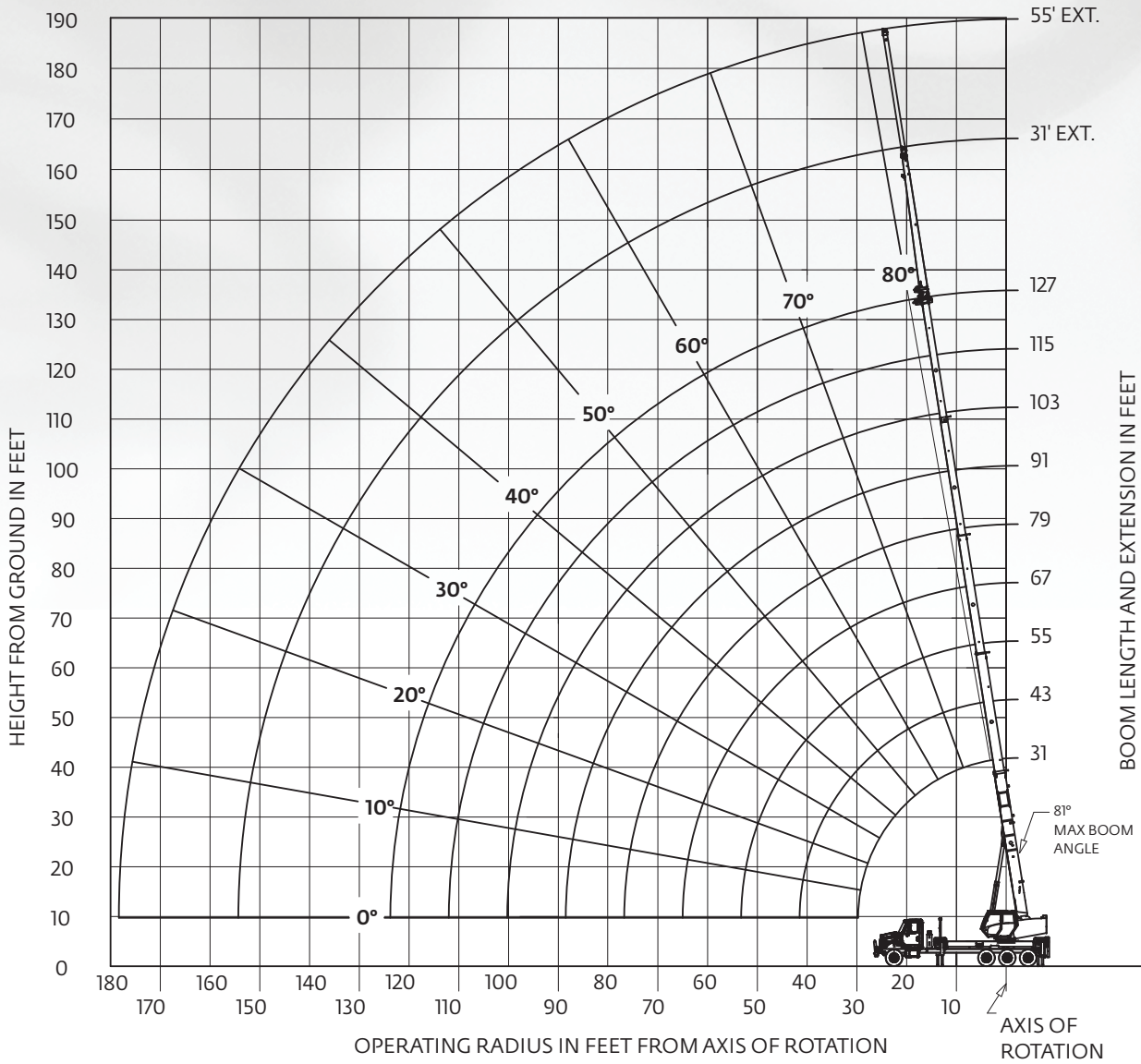
38,71 m
(127 ft)



7,52 m
(24.7 ft)



360°



DIMENSIONS ARE FOR LARGEST FURNISHED HOOK BLOCK & HEADACHE BALL, WITH ANTI-TWO BLOCK ACTIVATED.

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Aerial reach diagram

127 ft boom



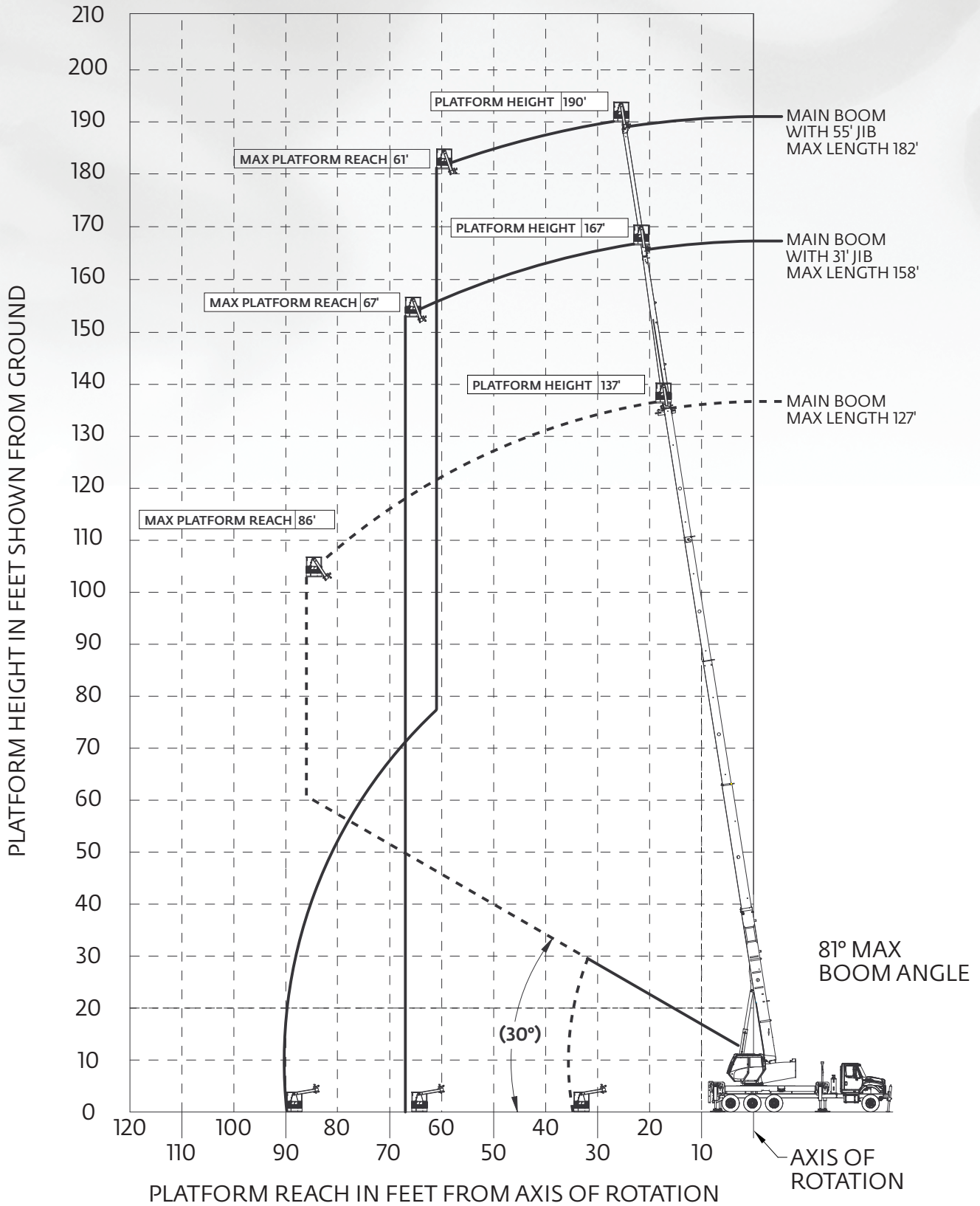
38,71 m
(127 ft)



7,52 m
(24.7 ft)

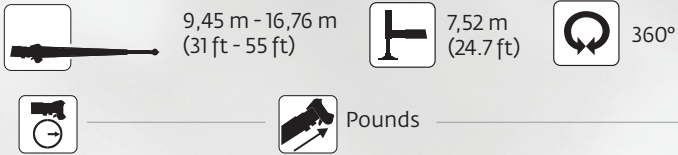


360°



Load chart

127 ft boom



Radius in Feet	31 ft LENGTH
	#03
30	3400 (80)
46	3200 (75)
60	2700 (70)
73	2100 (65)
85	1700 (60)
96	1200 (55)
106	650 (50)
Min. boom angle for indicated length (no load)	47.0
Max. boom length at 0° boom angle (no load)	91

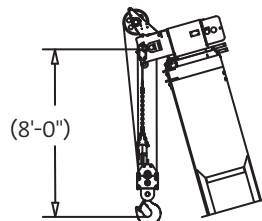
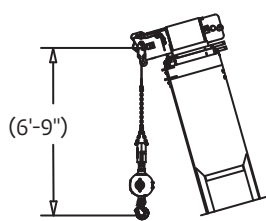
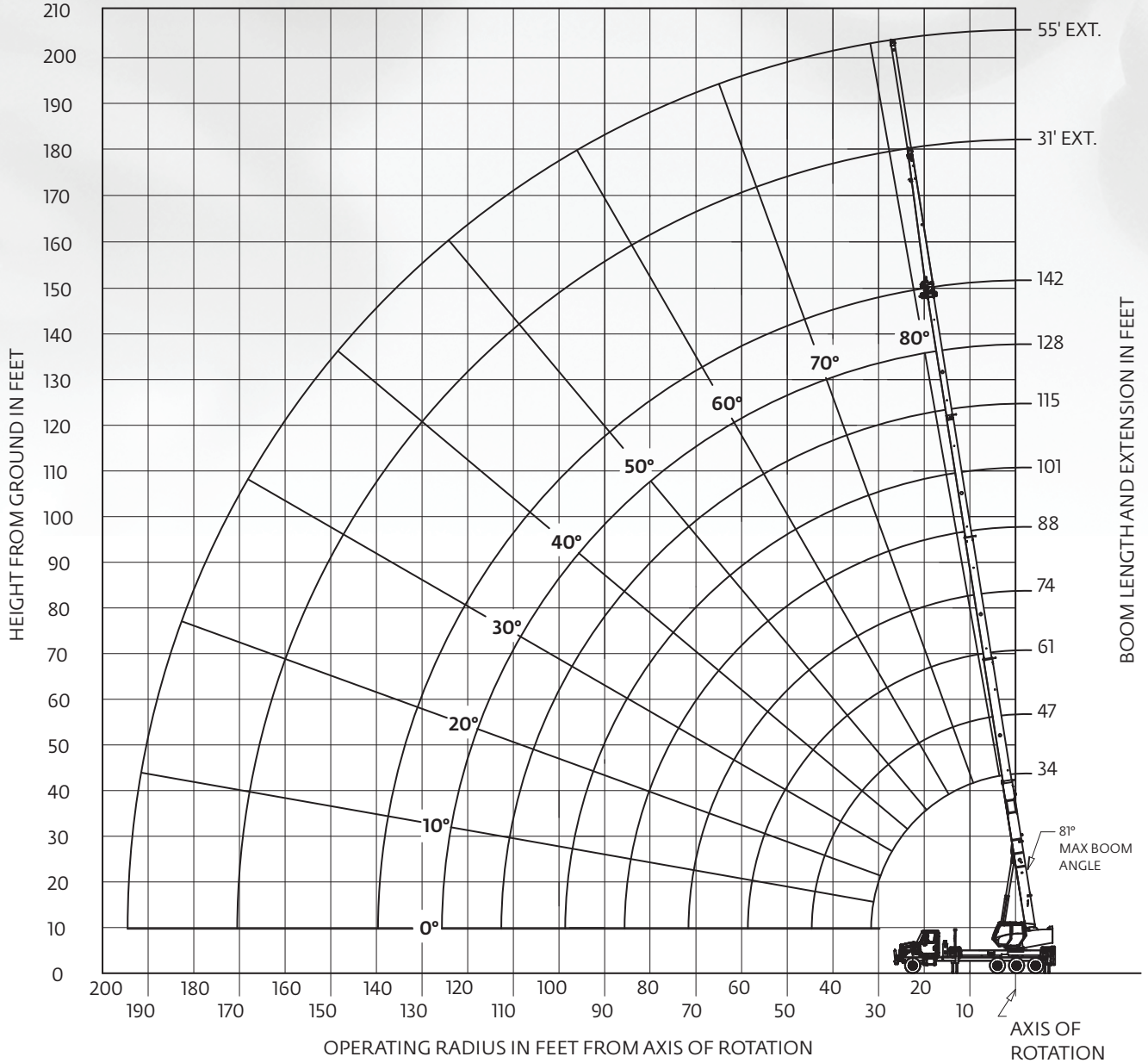
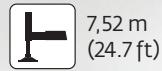
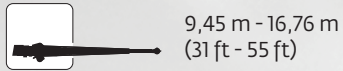
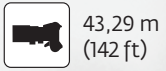
Radius in Feet	55 ft LENGTH
	#04
36	2200 (80)
54	2200 (75)
70	1600 (70)
85	1000 (65)
Min. boom angle for indicated length (no load)	58.0
Max. boom length at 0° boom angle (no load)	91

80100619

NOTE: () Boom angles are in degrees.
#RCL operating code. Refer to RCL manual for
operating instructions.

Working range

142 ft boom



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Aerial reach diagram

142 ft boom



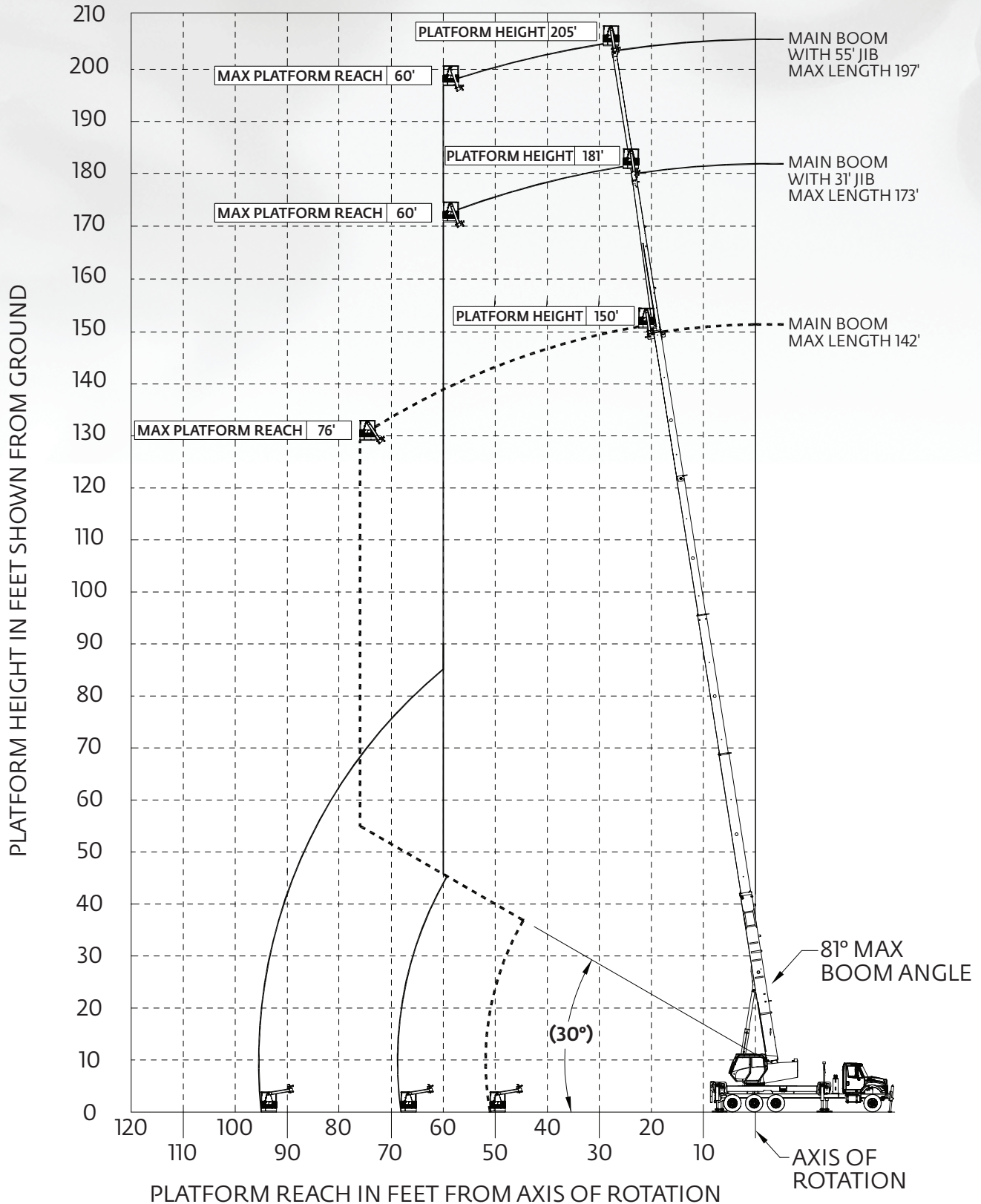
43,29 m
(142 ft)



7,52 m
(24.7 ft)



360°



Load chart

142 ft boom



43,29 m
(142 ft)



7,52 m
(24.7 ft)



360°



Pounds

Radius in Feet	#01								
	Main Boom Length in Feet								
	34	47-A	61-B	74-C	88-D	101-E	115-F	128-G	142
7	90,000 (74.9)								
8	79,600 (73.1)								
10	68,200 (69.4)	40,000 (75.6)							
12	57,100 (65.7)	40,000 (73.1)	40,000 (77.4)						
15	44,750 (59.7)	40,000 (69.2)	39,500 (74.5)	35,200 (77.7)					
20	32,100 (48.9)	32,700 (62.3)	33,100 (69.5)	31,500 (73.7)	23,050 (76.7)	17,400 (78.8)			
25	24,300 (35.6)	24,950 (55.0)	25,300 (64.3)	25,550 (69.6)	20,700 (73.4)	15,750 (76.0)	13,000 (78.3)		
30	18,950 (13.5)	19,700 (46.9)	20,100 (58.8)	20,300 (65.2)	18,750 (70.0)	14,300 (73.1)	12,150 (75.8)	10,050 (78.0)	8000 (79.5)
35		15,900 (37.5)	16,300 (52.9)	16,500 (60.7)	16,700 (66.4)	13,200 (70.1)	11,150 (73.5)	9550 (75.8)	7600 (77.7)
40		13,000 (25.2)	13,400 (46.6)	13,650 (56.1)	13,850 (62.7)	12,200 (67.1)	10,400 (71.0)	9050 (73.7)	7450 (75.9)
45			11,200 (40.2)	11,400 (51.5)	11,550 (58.8)	11,100 (64.2)	9750 (68.4)	8550 (71.4)	7200 (74.0)
50			9250 (31.9)	9550 (46.2)	9700 (55.1)	9900 (60.9)	9100 (65.7)	8050 (69.1)	6800 (72.0)
55			7600 (20.7)	7900 (40.4)	8100 (50.9)	8250 (57.5)	8400 (62.9)	7600 (66.7)	6550 (70.0)
60				6550 (33.7)	6800 (46.4)	6900 (53.8)	7050 (59.9)	7100 (64.3)	6200 (67.9)
65				5450 (25.4)	5700 (41.5)	5800 (50.0)	5950 (56.7)	6100 (61.6)	5600 (65.6)
70				4500 (12.7)	4750 (36.0)	4900 (46.0)	5000 (53.5)	5150 (58.8)	5250 (63.4)
75					3950 (29.7)	4100 (41.7)	4200 (50.1)	4350 (55.9)	4450 (60.9)
80					3250 (21.7)	3400 (37.0)	3550 (46.5)	3650 (52.9)	3750 (58.3)
85					2600 (7.2)	2800 (31.6)	2950 (42.8)	3000 (49.8)	3100 (55.6)
90						2250 (25.3)	2400 (38.7)	2500 (46.5)	2550 (52.9)
95						1800 (16.6)	1900 (34.1)	2000 (43.1)	2100 (50.0)
100							1450 (29.0)	1600 (39.4)	1650 (47.0)
105							1100 (22.7)	1200 (35.4)	1300 (43.9)
110							750 (13.8)	800 (30.9)	900 (40.6)
Minimum boom angle (°) for indicated length (no load)						0	5	26.5	35.5
Maximum boom length (ft.) at 0° boom angle (no load)						88			

NOTE: () Boom angles are in degrees.

#RCL operating code. Refer to RCL manual for operating instructions.

Lifting Capacities at Zero Degree Boom Angle									
Boom Angle	Main Boom Length in Feet								
	34	47-A	61-B	74-C	88-D	101-E			
0°	17,950 (31.5)	11,200 (44.5)	6,600 (58.5)	4,250 (71.5)	2,550 (85.5)	1,450 (98.5)			

NOTE: () Reference radii in feet.

80097067

Rated Load Reductions from main boom capacity when lifting over main boom nose with:									
tele. erected (retracted)	2300	2150	2000	1950	1900	1850	1800	1750	1700
26' erected	1050	1000	950	925	900	900	875	875	850

Load chart

142 ft boom



Radius in Feet	31 ft LENGTH
	#03
33	3400 (80)
50	3200 (75)
65	2700 (70)
79	2100 (65)
Min. boom angle for indicated length (no load)	51°
Max. boom length at 0° boom angle (no load)	88 ft

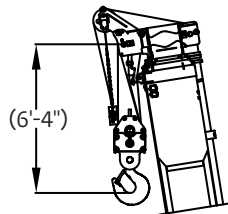
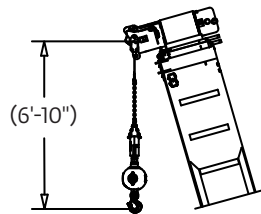
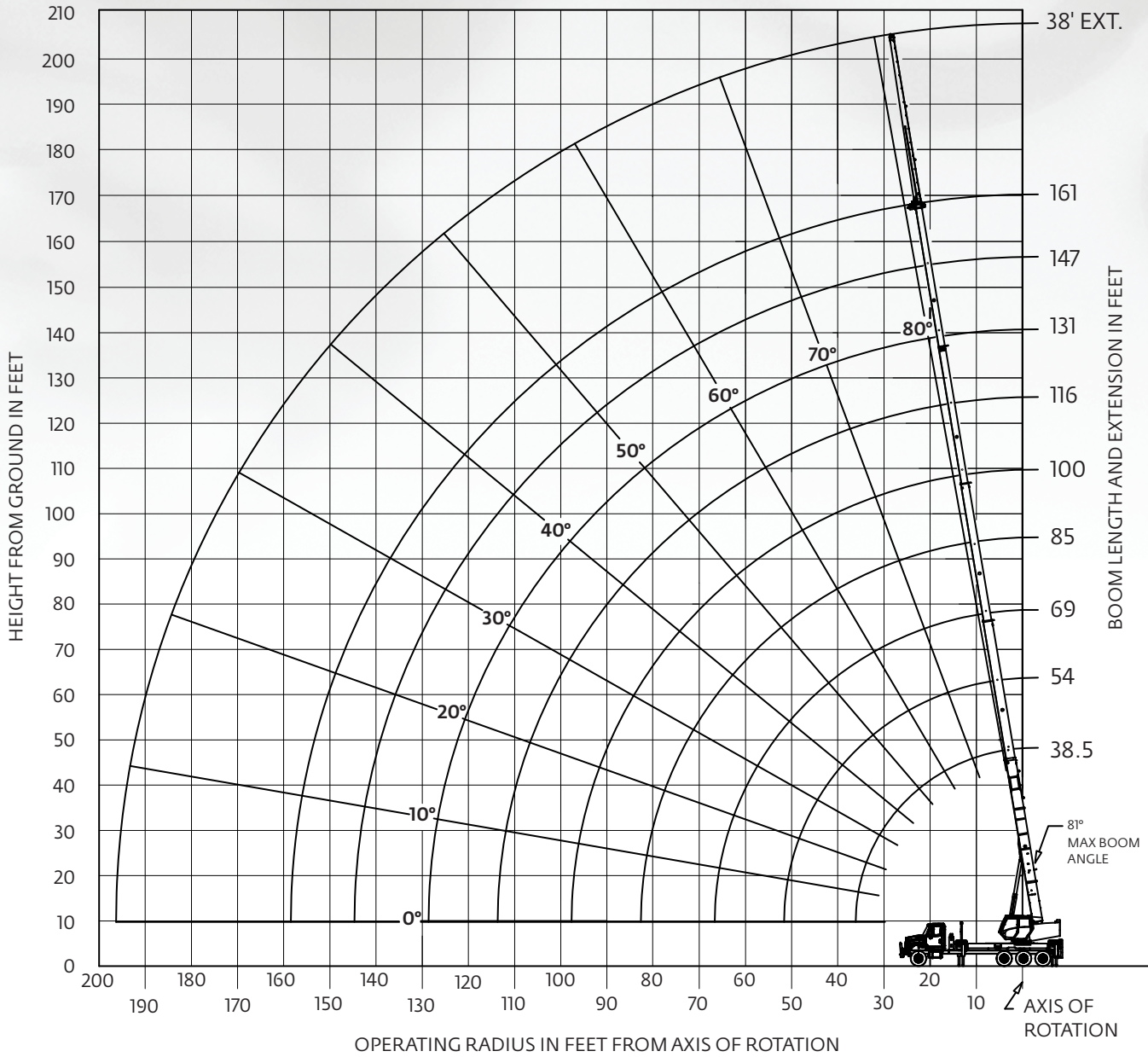
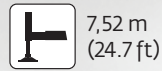
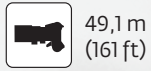
Radius in Feet	55 ft LENGTH
	#04
40	2200 (80)
59	2200 (75)
76	1600 (70)
91	1000 (65)
Min. boom angle for indicated length (no load)	60°
Max. boom length at 0° boom angle (no load)	74 ft

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NOTE: () Boom angles are in degrees.
#RCL operating code. Refer to RCL manual for
operating instructions.

Working range

161 ft boom



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Aerial reach diagram

161 ft boom



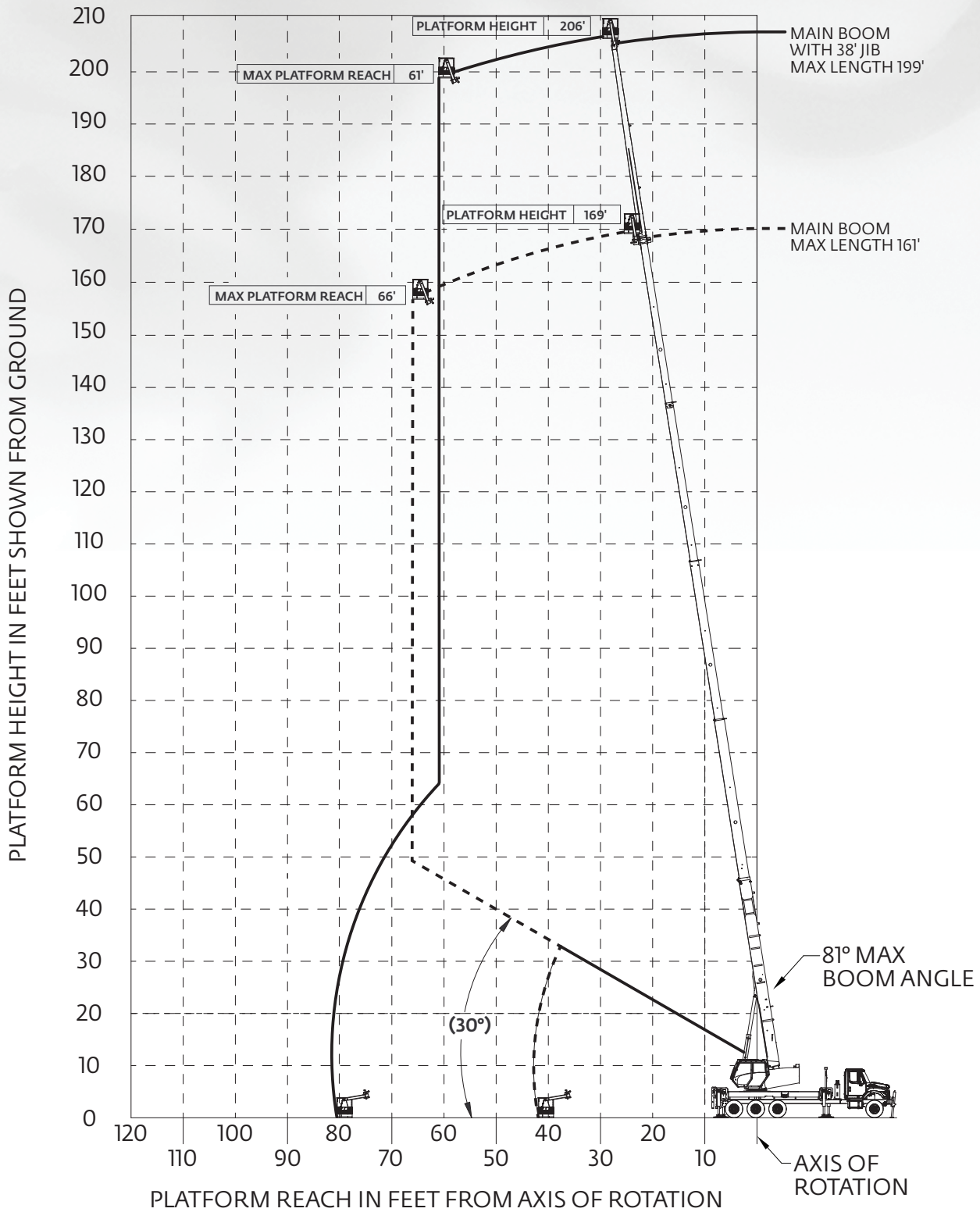
49,1 m
(161 ft)



7,52 m
(24.7 ft)



360°



Load chart

161 ft boom



49,1 m
(161 ft)



7,52 m
(24.7 ft)



360°



Pounds

Radius in Feet	#01								
	Main Boom Length in Feet								
	38.5	54-A	69-B	85-C	100-D	116-E	131-F	147-G	161
6	90,000 (78.5)								
8	77,000 (75.4)								
10	65,500 (72.2)	25,650 (77.4)							
12	56,700 (69.0)	25,200 (75.2)	23,350 (78.8)						
15	44,400 (64.0)	24,750 (71.8)	22,950 (76.3)	21,250 (79.1)					
20	31,700 (55.1)	24,300 (66.0)	22,500 (72.0)	20,850 (75.8)	15,850 (78.3)				
25	23,900 (45.1)	22,050 (59.9)	20,350 (67.5)	18,750 (72.3)	14,250 (75.5)	10,000 (77.9)	7700 (79.7)		
30	18,650 (32.7)	17,350 (53.3)	16,100 (62.8)	14,850 (68.6)	12,900 (72.5)	9100 (75.5)	7200 (77.7)	5600 (79.3)	
35	14,750 (11.0)	13,950 (46.1)	12,950 (58.0)	12,000 (64.8)	11,250 (69.5)	8400 (72.9)	6600 (75.5)	5300 (77.5)	4000 (78.9)
40		11,350 (37.8)	10,600 (53.3)	9850 (61.2)	9200 (66.5)	7750 (70.4)	6150 (73.3)	5050 (75.6)	3900 (77.3)
45		9400 (28.6)	8850 (47.8)	8250 (57.2)	7700 (63.3)	7050 (67.7)	5800 (71.1)	4750 (73.7)	3750 (75.6)
50		7700 (12.2)	7400 (41.7)	6900 (52.9)	6500 (59.9)	6150 (65.0)	5400 (68.8)	4500 (71.8)	3550 (73.9)
55			6100 (34.7)	5750 (48.4)	5450 (56.5)	5100 (62.1)	4900 (66.5)	4200 (69.8)	3400 (72.2)
60			5000 (26.2)	4750 (43.6)	4500 (52.8)	4250 (59.1)	4100 (63.9)	3950 (67.8)	3250 (70.4)
65			4100 (13.0)	3950 (38.2)	3750 (49.0)	3550 (56.1)	3400 (61.4)	3300 (65.5)	2950 (68.6)
70				3250 (32.1)	3100 (45.0)	2950 (52.9)	2850 (58.7)	2750 (63.2)	2700 (66.7)
75				2650 (24.6)	2550 (40.6)	2450 (49.6)	2350 (56.0)	2300 (60.9)	2250 (64.6)
80					2100 (35.8)	2000 (46.1)	1950 (53.6)	1900 (58.5)	1850 (62.5)
85					1700 (30.3)	1650 (42.4)	1600 (50.3)	1550 (56.1)	1500 (60.3)
90					1300 (23.6)	1300 (38.4)	1250 (47.2)	1250 (53.6)	1200 (58.2)
95					1000 (14.0)	1000 (34.0)	1000 (44.0)	950 (50.9)	950 (55.9)
100						700 (29.0)	750 (40.6)	750 (48.3)	750 (53.6)
105						500 (23.0)	500 (37.0)	500 (45.4)	500 (51.2)
Minimum boom angle (°) for indicated length (no load)						23.0	37.0	45.4	51.2
Maximum boom length (ft) at 0° boom angle (no load)						100			

NOTE: () Boom angles are in degrees.

#RCL operating code. Refer to RCL manual for operating instructions.

Lifting Capacities at Zero Degree Boom Angle									
Boom Angle	Main Boom Length in Feet								
	38.5	54-A	69-B	85-C	100-D				
0°	10,000 (36.0)	7000 (51.0)	3800 (66.5)	1900 (82.0)	800 (97.5)				

NOTE: () Reference radii in feet.

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Rated Load Reductions from main boom capacity when lifting over main boom nose with:									
38° Erected	2200	1950	1850	1750	1700	1650	1650	1600	1600

Load chart

161 ft boom



Radius in Feet	38 ft LENGTH
	#06
41	2300 (80)
61	2200 (75)
79	1650 (70)
94	1000 (65)
Min. boom angle for indicated length (no load)	60°
Max. boom length at 0° boom angle (no load)	69 ft

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