

# National Crane NBT40-142

## Preliminary Quick Reference

**Capacity:** 36,3 t (40 USt) rating

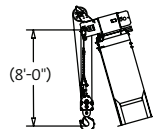
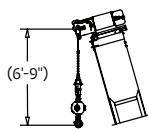
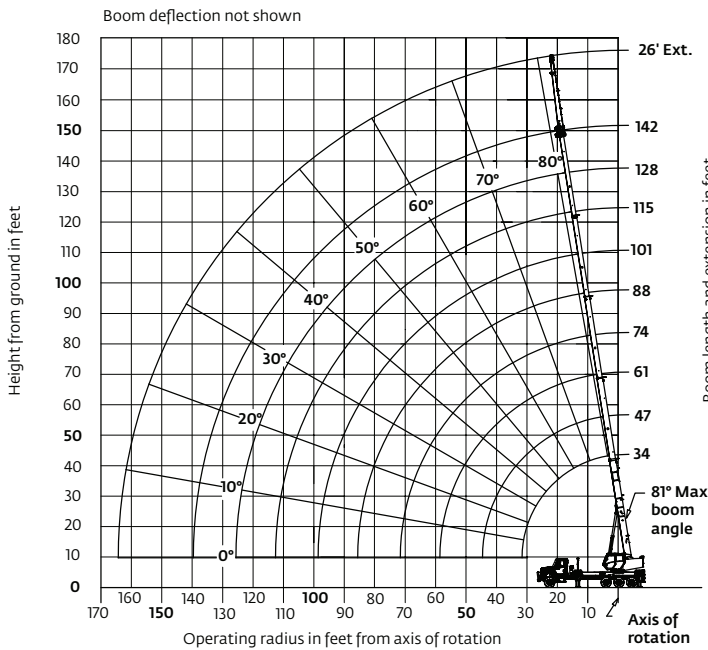
**Boom:** 40,8 m (142 ft)

• 45,72 m (150 ft) maximum tip height (main boom)

• 62,48 m (205 ft) maximum vertical reach (boom with jib)

**Working range: 142 ft main boom, full span outrigger, and 26 ft jib**

**Load chart: 142 ft main boom, full span outrigger, without jib**



Dimensions are for largest furnished hookblock and 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.

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	80,000 (74.9)									
8	75,000 (73.1)									
10	66,500 (69.4)	40,000 (75.6)								
12	55,000 (65.7)	40,000 (73.1)	40,000 (77.4)							
15	43,000 (59.7)	40,000 (69.2)	38,000 (74.5)	34,000 (77.7)						
20	30,750 (48.9)	31,400 (62.3)	31,800 (69.5)	30,000 (73.7)	23,050 (76.7)	17,400 (78.8)				
25	23,250 (35.7)	23,850 (55)	24,250 (64.2)	24,500 (69.5)	20,700 (73.4)	15,750 (75.9)	13,000 (78.3)			
30	18,000 (13.5)	18,800 (46.9)	19,200 (58.8)	19,450 (65.2)	18,750 (70)	14,300 (73.1)	12,150 (75.8)	10,050 (78.3)	8000 (79.5)	
35		15,150 (37.5)	15,550 (52.9)	15,800 (60.7)	16,000 (66.4)	13,200 (70.1)	11,150 (75.8)	9550 (78.3)	7600 (77.7)	
40		12,200 (25.2)	12,650 (46.6)	12,900 (56)	13,100 (62.6)	12,200 (67.1)	10,400 (71)	9050 (73.7)	7450 (75.9)	
45			10,300 (40.1)	10,550 (51.5)	10,750 (59.1)	10,900 (64.2)	9750 (68.4)	8550 (71.4)	7200 (74)	
50			8400 (31.8)	8650 (46.2)	8800 (55)	9000 (60.8)	9100 (65.7)	8050 (69.1)	6,800 (72)	
55			6850 (20.6)	7150 (40.3)	7300 (50.8)	7450 (57.3)	7600 (62.8)	7600 (66.7)	6550 (70)	
60			5900 (33.6)	6050 (46.3)	6200 (53.7)	6350 (59.7)	6500 (64.1)	6500 (66.9)	6200 (67.9)	
65			4850 (25.4)	5050 (41.4)	5200 (49.9)	5300 (56.6)	5450 (61.4)	5550 (65.6)		
70			4000 (12.6)	4200 (35.9)	4300 (45.9)	4450 (53.3)	4550 (58.6)	4650 (63.1)		
75				3450 (29.6)	3550 (41.6)	3700 (49.9)	3800 (55.7)	3900 (60.6)		
80				2800 (21.6)	2900 (36.9)	3000 (46.4)	3100 (52.7)	3250 (58)		
85				2300 (7.2)	2300 (31.5)	2400 (42.6)	2500 (49.6)	2600 (55.3)		
90					1850 (25.1)	1500 (38.5)	2000 (46.3)	2050 (52.6)		
95					1450 (16.5)	1100 (34)	1500 (42.8)	1600 (49.7)		
100						750 (28.8)	1100 (39.2)	1200 (46.7)		
105						650 (22.6)	800 (35.1)	800 (43.6)		
110							650 (41.6)			
Minimum boom angle (°) for indicated length (no load)							0	22.5	35	43.4
Maximum boom length (ft) at 0° boom angle (no load)							101			

NOTE: ( ) Boom angles are in degrees.

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

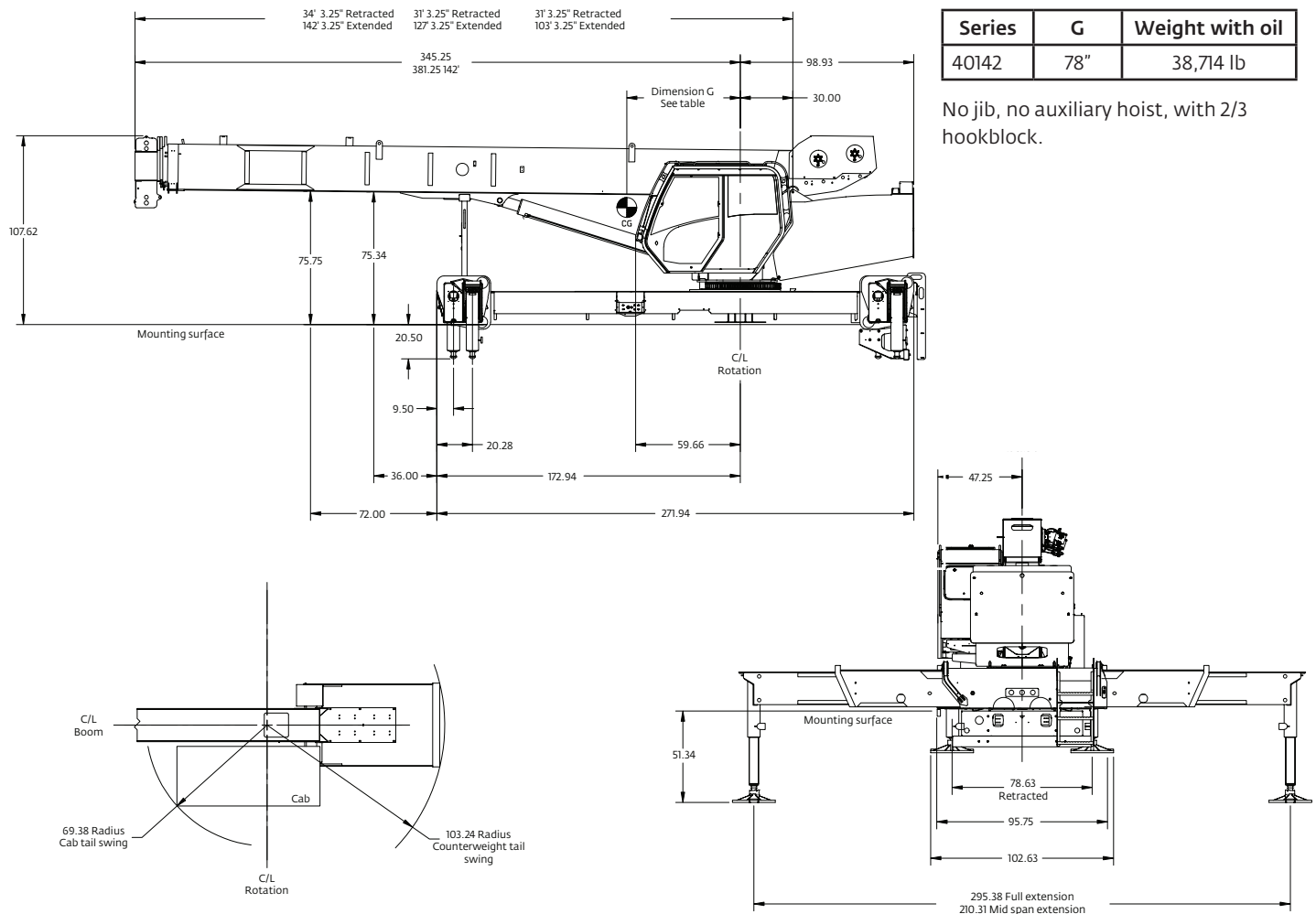
Lifting capacities at zero degree boom angle							
Boom angle	Main boom length in feet						
	34	47-A	61-B	74-C	88-D	101-E	
0°	17,350 (31.5)	9,950 (44.5)	5,900 (58.5)	3,800 (71.5)	2,200 (85.5)	1,100 (98.5)	

NOTE: ( ) Reference radii in feet.

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Rated Load Reductions from main boom capacity when lifting over main boom nose with extension erected (retracted):									
(in lb)	2300	2150	2000	1950	1900	1850	1800	1750	1700

## Dimensions



More information about this product can be found in the *National Crane NBT40 Product Guide*.

## Specifications

### Boom

At 43,29 m (142 ft), the NBT40 five-section boom is the longest in its size range. The long boom allows the operator to perform more lifts without the use of a jib, reducing setup time and improving efficiency. Also available are optional boom lengths of 31,39 m (103 ft) and 38,71 m (127 ft).

### Outriggers

Outrigger span of 7,52 m (24.7ft) when fully extended; 5,33 m (17.5 ft) at mid-span. Equipped with both ground level and in-cab outrigger controls, the NBT40 outriggers allow quick and easy crane set-up and can be positioned at 0%, 50% and 100%.

### Operator's cab

Rigid galvanized steel structure, well insulated, with tinted safety glass for operator visibility and comfort. Multi-position seat with arm rest mounted single axis controls, ventilation fans, diesel heater, dual cab mounted worklights and wipers. Optional air conditioning is available.

### Overload protection

National Crane boom trucks are equipped with overload protection. A Load Moment Indicator (LMI) is standard on all NBT40 machines. The LCD display is visible in full or low light and displays all crane load lifting values simultaneously. Includes Work Area Definition System (WADS).

### Torsion box

The stronger standard torsion box improves rigidity, reduces truck frame flex and reduces the need for counterweight.

### Easy Glide Boom Wear Pads

Easy Glide boom wear pads reduce the conditions that cause boom chatter and vibration. The net result is smoother crane operation.

### Speedy-reeve boom tip and sheave blocks

These standard features simplify rigging changes by decreasing the time needed to change line reeving.

### Pre-painted components

Painting crane components before assembly reduces the possibility of rust, improves serviceability and enhances the appearance of the machine.

### Control valve

State of the art control valve provides smoother operation. The new design eliminates parts, reducing repair costs and improving the machines serviceability.

### Serviceability

- Bearings on the boom extend and retract cables can be greased through access holes in the boom side plates

- Boom sections are supported by one hydraulic extend cylinder, minimizing maintenance

### Hoist

Two-speed grooved drum hoist with cable packer, and electronic drum rotation indicator (DRI).