

# **National Crane Series NBT30H**

## **Product Guide**



# **Features**

### **National Crane Series NBT30H**

- 27,2 t (30 USt) maximum capacity
- 36,27 m (119 ft) maximum tip height (main boom)
- 49,68 m (163 ft) maximum tip height (boom with jib)



### **Boom**

The 110 ft four-section boom is the longest in its size range. The longer boom allows the operator to perform more lifts without the use of a jib, reducing setup time and improving efficiency. A 69 ft four-section boom or a 100 ft four-section boom are also available.

## **Graphical LMI**

The Graphical Load Moment Indicator (LMI) is standard on all Series NBT30H machines. The LMI system displays all crane load lifting values simultaneously while providing real-time information about the crane and truck operating system and includes work area definition system (WADS) and operating limits. The LMI is also weather resistant and visible in full or low light.



## **Easy Reach control station**

The Easy Reach control station can be tilted to the right or left side of the crane as needed and can be stowed in the center position for transport. The single axis pilot operated crane controls allow smooth operation for each crane function.

### **Torsion box**

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

## **Outriggers**

Two sets of "HO"- style outriggers with 6 m (20 ft) full span, a 4,2 m (14 ft) mid span setting with manual locks and reduced capacity chart and fully retracted outrigger spread with reduced capacity chart. Main

outriggers are equipped with removable ball and socket aluminum foot pads. Independent outrigger controls (umbilical design) are located at the easy reach control console and includes level indicator (sight bubble).



# **Features**

## National Crane is proud to introduce the Series NBT30H

- The Series NBT30H comes standard with 410° non-continuous rotation
- Adjustable swing speed also comes standard on the Series NBT30H. A control
  knob located on the swing motor brake release valve can be easily adjusted to the
  crane operator's swing speed preference
- Speedy-reeve boom tip and sheave blocks simplify rigging changes by decreasing the time needed to change line reeving
- Two-speed hoist provides faster winch payout and pickup of unloaded cable
- Pre-painted components reduce the possibility of rust, improve serviceability and enhance the appearance of the machine
- Additional serviceability enhancements such as boom bearing grease access points, the reduction of internal boom parts and internal anti-two block wiring keep you working longer
- The state of the art control valve provides smoother operation and eliminates parts to improve serviceability and reduce repair costs
- Easy Glide boom wear pads reduce the conditions that cause boom chatter and vibration. The net result is smoother crane operation
- Internal anti-two-block wire routing eliminates damage potential



# **Contents**

Specifications	5
Mounting configurations	7
Dimensions	8
Working range - 69 ft boom	9
Load charts - 69 ft boom	10
Working range - 100 ft boom	11
Load charts - 100 ft boom	12
Working range - 110 ft boom	14
Load charts - 110 ft boom	15
Accessories	17

# **Specifications**

### Boom and jib combinations data

#### Available in three basic models:

**NBT30H69** – Equipped with a 6,70 m - 21,03 m (22 ft - 69 ft) four-section boom. Maximum tip height is 24,38 m (80 ft). 6,70 m - 21,03 m (22 ft - 69 ft) four-section boom.



**NBT30H100** – Equipped with a 8,83 m - 30,48 m (29 ft - 100 ft) four-section boom. This model can be equipped with a 7,62 m - 13,41 m (25 ft - 44 ft) two section jib. Maximum tip height with 13,41 m (44 ft) jib is 44,63 m (153 ft).

8,83 m - 30,48 m (29 ft -100 ft) four-section boom.

**13FJ44M** 7,62 m - 13,41 m (25 ft - 44 ft) two-section jib



**NBT30H110** – Equipped with a 10,05 m - 33,52 m (33 ft - 110 ft) four-section boom. This model can be equipped with a 7,62 m - 13,41 m (25 ft - 44 ft) two-section jib. Maximum tip height with 13,41 m (44 ft) jib is 49,68 m (163 ft).

10,05 m - 33,52 m (33 ft - 110 ft) four-section boom.

**13FJ44M** 7,62 m - 13,41 m (25 ft - 44 ft) two-section jib



Note: Maximum tip height is measured with outriggers/stabilizers fully extended.

# **Specifications**

### NBT30H winch data

- Do not deadhead line block against boom tip when extending boom
- Keep at least three wraps of loadline on drum at all times
- Use only 9/16 in diameter rotation-resistant cable with 38,500 lb breaking strength on this machine

MAXIMUM BOOM LENGTH AT MAXIMUM ELEVATION WITH RIGGING SHOWN WITH LOAD BLOCK AT GROUND LEVEL

1 part line	2 part line	3 part line	4 part line	5 part line	6 part line	7 part line
69 ft boom	69 ft	69 ft	61 ft	51 ft	31 ft	21 ft
144 ft boom jib	100 ft	75 ft	60 ft	50 ft	43 ft	36 ft
154 ft boom jib	110 ft	78 ft	78 ft	62 ft	46 ft	32 ft

Winch	Average cable supplied	Breaking strength	Lift and speed	Lift and speed	Lift and speed	Lift and speed	Lift and speed	Lift and speed	Lift and speed
Low speed winch	9/16 in Diameter rotation resistant	17 464 kg (38,500 lb)	3493 kg (7700 lb) 48.8 m/min (160 fpm)	6986 kg (15,400 lb) 24.3 m/min (80 fpm)	10 478 kg (23,100 lb) 16.2 m/min (53 fpm)	13 971 kg (30,800 lb) 12.2 m/min (40 fpm)	17 464 kg (38,500 lb) 9.8 m/min (32 fpm)	20 956 kg (46,200 lb) 8.2 m/min (27 fpm)	24 449 kg (53,900 lb) 7.0 m/min (23 fpm)
High speed winch	9/16 in Diameter rotation resistant	17 464 kg (38,500 lb)	1361 kg (3000 lb) 94.4 m/min (310 fpm)	2722 kg (6000 lb) 47.2 m/min (155 fpm)	4083 kg (9000 lb) 31.4 m/min (103 fpm)	5443 kg (12,000 lb) 23.8 m/min (78 fpm)	6804 kg (15,000 lb) 18.9 m/min (62 fpm)	8165 kg (18,000 lb) 15.8 m/min (52 fpm)	9526 kg (21,000 lb) 13.4 m/min (44 fpm)

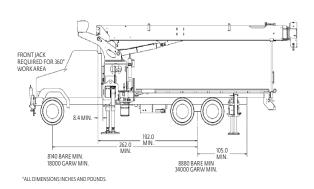
All winch pulls and speeds in this chart are shown on the fourth layer. Winch line pulls would increase on the first, second and third layers. Winch line speed would decrease on the first, second and third layers. Winch line pulls may be limited by the winch capacity or the ANSI 5 to 1 cable safety factor. These are shown below:

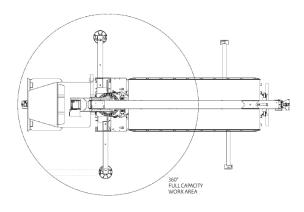
Winch	Fourth layer drum pull	Allowable cable pull
Standard planetary	3493 kg (7700 lb) (low speed)	3492 kg (7700 lb)
	1361 kg (3000 lb) (high speed)	

Block type	Rating	Weight
Downhaul weight	4,53 t (5 USt)	68 kg (150 lb)
1 Sheave Block	10,89 t (12 USt)	122 kg (270 lb)
2 Sheave Block	17,24 t (19 USt)	159 kg (350 lb)
3 Sheave Block	27,22 t (30 USt)	261 kg (575 lb)

# Mounting configurations

The mounting configuration is based on an 85% stability factor. If the bare truck weight requirements are not met, counterweight will be required. The complete unit must be installed on the truck in accordance with factory requirements. Since individual truck chassis vary, a test must be performed on the unit to verify actual stability after mounting and installing counterweight (if required). A summary of mounting and truck requirements are:





#### For 180° working area -

Gross Axle Weight Rating Front (GAWR) – 8165 kg (18,000 lb) Gross Axle Weight Rating Rear (GAWR) – 15 455 kg (34,000 lb) Gross Vehicle Weight Rating (GVW) – 23 587 kg (52,000 lb) Wheelbase (WB) – 6,65 m (262 in) Cab to Axle Trunnion (CT) – 4,88 m (192 in) After Frame (AF) – 2,67 m (105 in) Frame Section Modulus (SM) from outrigger to RSOD – 327 cm³ (20 in³) and 759 MPa (110,000 psi) material Bare Chassis Weight required for stability prior to installation Front – 3692 kg (8140 lb) Rear – 4028 kg (8880 lb)

### For 360° working area –

Optional Single Front Stabilizer (SFO)
Gross Axle Weight Rating Front (GAWR) – 8165 kg (18,000 lb)
Gross Axle Weight Rating Rear (GAWR) – 15 455 kg (34,000 lb)
Gross Vehicle Weight Rating (GVW) – 23 587 kg (52,000 lb)
Wheelbase (WB) – 6,65 m (262 in)
Cab to Axle Trunnion (CT) – 4,88 m (192 in)
After Frame (AF) – 2,67 m (105 in)
Frame Section Modulus (SM) from front spring hanger to end of

Frame Section Modulus (SM) from front spring hanger to end of after frame – 327 cm<sup>3</sup> (30 in<sup>3</sup>) and 759 MPa (110,000 psi) material

Bare Chassis Weight required for stability prior to installation Front – 3720 kg (8200 lb) Rear – 4037 kg (8900 lb)

Note: Chassis will require extended front frame rails for SFO addition.

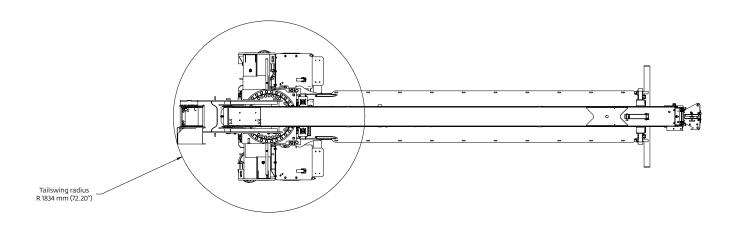
For 360° stability the truck frame must have a 492 cm³ (30 in³) section modulus [372 850 Nm (3,300,000 in-lb) RBM] minimum under the crane frame, 295 cm³ (18 in³) section modulus [223 710 Nm (1,980,000 in-lb) RBM] at the front spring rear hanger, 197 cm³ (12 in³) section modulus [149 140 Nm (1,320,000 in-lb) RBM] through the front spring and 49 cm³ (3 in³) section modulus [37 284 Nm (330,000 in-lb) RBM] at the stabilizer attachment point on each truck frame rail.

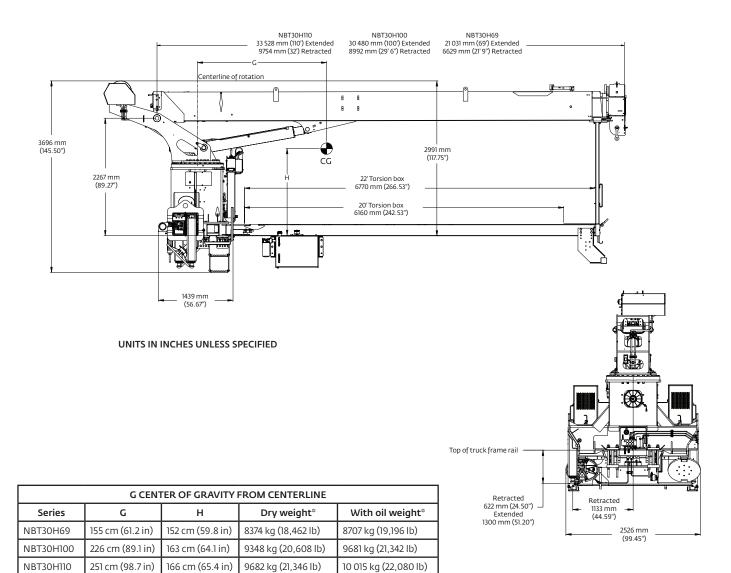
#### Notes:

- Gross Vehicle Weight Rating (GVWR) is dependent on all components of the vehicle (axles, tires, springs, fame, etc.) meeting manufacturers' recommendations; always specify GVWR when purchasing trucks
- Diesel engines require a variable speed governor and energize-to-run fuel solenoid for smooth crane operation; electronic fuel injection is required
- All mounting data is based on a National Crane Series NBT30H with subbase and an 85% stability factor
- The complete unit must be installed in accordance with factory requirements, and a test performed to determine actual stability and counterweight requirements; contact the factory for details
- Transmission neutral safety interlock switch is required
- NBT30H100 with front center stabilizer will be approximate 40 ft overall length. NBT30H110 will exceed 40 ft overall length

Series NBT30H

# **Dimensions**





10 015 kg (22,080 lb)

* Above weights do not	include reservoir. RSOI	). iib. PTO. pump. BED.

251 cm (98.7 in)

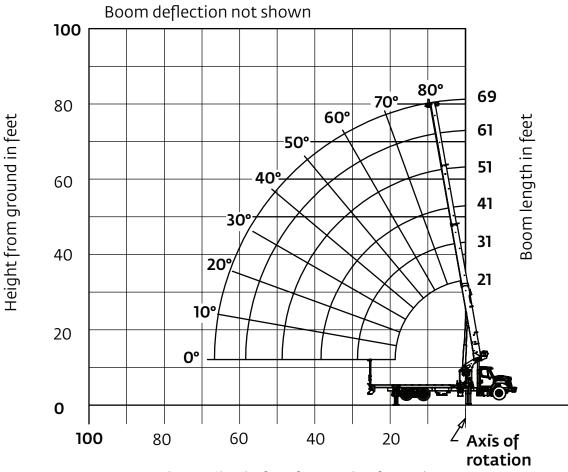
166 cm (65.4 in)

NBT30H110

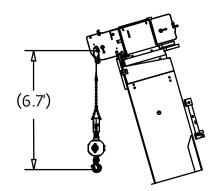
<sup>\*\*</sup> Weight includes boom, winch, rope, turret, lift cylinder, frame, controls, outriggers, platforms, torque box, boom rest, bumper, downhaul weight.

# Working range

### 69 ft main boom, full span outrigger, without jib



Operating radius in feet from axis of rotation



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.

## 69 ft main boom, full span outrigger, without jib

Radius	#01								
in	Main boom length in feet								
feet	21	31-A	41-B	51-C	61-D	69			
5	*60,000 (71.6)								
8	47,500 (62.5)	33,500 (71.7)	33,400 (76.9)						
10	40,300 (56)	33,100 (67.7)	32,300 (74)	35,000 (78.1)					
12	34,900 (49)	32,700 (63.6)	31,100 (71.2)	30,100 (75.7)	29,000 (78.9)				
15	28,600 (36.5)	27,300 (56.9)	25,900 (66.5)	24,900 (72)	24,200 (75.8)	19,350 (78.1)			
20		21,200 (44.4)	20,300 (58.3)	19,500 (65.8)	18,850 (70.8)	18,450 (73.6)			
25		16,550 (27.5)	16,600 (49.2)	16,000 (59.2)	15,450 (65.5)	15,050 (69)			
30			13,800 (38.6)	13,500 (52.1)	13,050 (60)	12,700 (64.3)			
35			10,600 (24)	10,750 (44.1)	10,850 (54)	10,950 (59.4)			
40				8650 (34.6)	8750 (47.6)	8950 (54.2)			
45				7200 (23)	7300 (41)	7350 (48.6)			
50					6050 (32.5)	6100 (43)			
55					5100 (21.2)	5150 (36)			
60						4350 (27.3)			
65						3700 (13.7)			
М	inimum boo	m angle (°)	for indicate	d length (no	load)	0			
	aximum boo		t) at 0° boo			69			

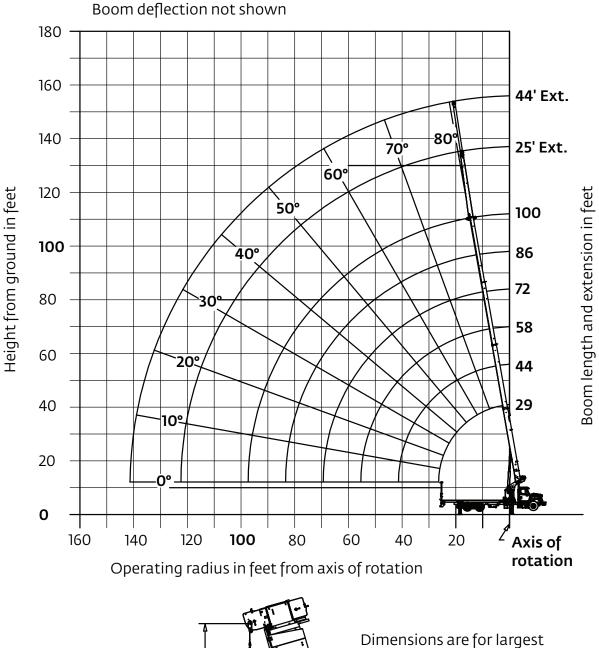
NOTE: Loads displayed in pounds. () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions \*This capacity requires optional 9/16" dia. 6x25 IWRC cable.

Lifting capacities at zero degree boom angle								
Boom		Main boom length in feet						
angle	21	31-A	41-B	51-C	61-D	69		
0°	15,000 (18.5)	10,000 (28.5)	7000 (38.5)	5000 (48.5)	3800 (58.5)	3625 (66.5)		

NOTE: () Reference radii in feet.

# Working range

### 100 ft main boom, full span outrigger, with 25 ft - 44 ft jib





<sup>\*</sup>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.

## 100 ft main boom, full span outrigger, without jib

Radius	#01						
in	in Main boom length in feet						
leet	29	44-A	58-B	72-C	86-D	100	
5	*60,000 (77.3)						
8	44,000 (70.8)	29,100 (77.9)					
10	36,900 (66.4)	29,000 (75.3)					
12	33,450 (61.8)	28,600 (72.7)	28,600 (78)				
15	28,300 (54.5)	24,600 (68.4)	23,500 (74.8)	22,900 (79)			
20	21,950 (40.6)	21,000 (60.9)	19,000 (69.4)	17,450 (74.6)	16,300 (78.3)	10,650 (79.9)	
25	15,700 (19.9)	17,500 (52.7)	16,500 (63.8)	15,700 (70.3)	13,700 (74.8)	10,450 (77.3)	
30		12,800 (43.5)	13,200 (57.9)	13,500 (65.8)	11,350 (71)	10,000 (74.4)	
35		10,150 (32.2)	10,100 (51.6)	10,400 (61.1)	10,600 (67.3)	9400 (71.8)	
40		7850 (16.3)	8000 (45)	8250 (56.6)	8450 (63.8)	8050 (68.9)	
45			6500 (37)	6700 (51.3)	6900 (59.6)	7100 (65.6)	
50			5250 (26.9)	5500 (45.5)	5650 (55.3)	5850 (62)	
55				4500 (39.1)	4700 (50.8)	4850 (58.2)	
60				3700 (31.7)	3800 (45.9)	4000 (54.4)	
65				3050 (22.1)	3150 (40.6)	3300 (50.5)	
70					2600 (34.7)	2750 (46.3)	
75					2100 (27.7)	2250 (41.8)	
80					1700 (18.2)	1800 (36.8)	
85						1450 (31.2)	
90						1150 (24.4)	
95						900 (14.6)	
М	inimum boo	m angle (°)	for indicate	d length (no	load)	0	
	aximum boo					100	

NOTE: Loads displayed in pounds. ( ) Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions \*This capacity requires optional 9/16" dia. 6x25 IWRC cable.

Lifting capacities at zero degree boom angle									
Boom		Main boom length in feet							
angle	29	44-A	58-B	72-C	86-D	100			
0°	10,000 (26.5)	7600 (41.5)	4350 (55.5)	2600 (69.5)	1550 (83.5)	800 (97.5)			

NOTE: () Reference radii in feet.

Rated Load Reductions from main boom capacity when lifting over main boom						
nose with ext. erected (retracted):						
(lb)	2200	1950	1850	1750	1700	1700

### 100 ft main boom, full span outrigger, with 25 ft - 44 ft jib

Radius			#	02			
in		М	ain boom	length in t	eet		
feet	29	44-A	58-B	72-C	86-D	100	
5	*59,200 (77.3)						
8	43,200 (70.8)	28,500 (77.9)					
10	36,100 (66.4)	28,400 (75.3)					
12	32,650 (61.8)	28,000 (72.7)	28,150 (78)				
15	27,500 (54.5)	24,000 (68.4)	23,050 (74.8)	22,550 (79)			
20	21,150 (40.6)	20,400 (60.9)	18,550 (69.4)	17,100 (74.6)	16,000 (78.3)	10,400 (79.9)	
25	14,900 (19.9)	16,900 (52.7)	16,050 (63.8)	15,350 (70.3)	13,400 (74.8)	10,200 (77.3)	
30		12,200 (43.5)	12,750 (57.9)	13,150 (65.8)	11,050 (71)	9750 (74.4)	
35		9550 (32.2)	9650 (51.6)	10,050 (61.1)	10,300 (67.3)	9150 (71.8)	
40		7250 (16.3)	7550 (45)	7900 (56.6)	8150 (63.8)	7800 (68.9)	
45			6050 (37)	6350 (51.3)	6600 (59.6)	6850 (65.6)	
50			4800 (26.9)	5150 (45.5)	5350 (55.3)	5600 (62)	
55				4150 (39.1)	4400 (50.8)	4600 (58.2)	
60				3350 (31.7)	3500 (45.9)	3750 (54.5)	
65				2700 (22.1)	2850 (40.6)	3050 (50.5)	
70					2300 (34.7)	2500 (46.3)	
75					1800 (27.7)	2000 (41.8)	
80					1400 (18.2)	1550 (36.8)	
85						1200 (31.2)	
90						900 (24.4)	
95						650 (14.6)	
М	inimum boo	m angle (°)	for indicate	d length (no	load)	0	
M	Maximum boom length (ft) at 0° boom angle (no load)						

NOTE: Loads displayed in pounds. () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions \*This capacity requires optional 9/16" dia. 6x25 IWRC cable.

	Lifting capacities at zero degree boom angle						
Boom	Main boom length in feet						
angle	29	44-A	58-B	72-C	86-D	100	
0°	9200 (26.5)	7000 (41.5)	3900 (55.5)	2250 (69.5)	1250 (83.5)	550 (97.5)	

NOTE: ( ) Reference radii in feet.

#### Boom extension capacity notes:

- 1. All capacities above the bold line are based on structural strength of boom extension.
- 2. 25 ft and 44 ft extension length may be used for single line lifting service.
- 3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. For boom angles not shown, use the rating of the next lower angle.

**Warning:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.

- 4. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- Capacities listed are with outriggers properly extended and vertical jacks set.
- When lifting over the main boom nose with 25 ft and 44 ft extension erected, the outriggers must be fully extended or 50% (14 ft) spread.

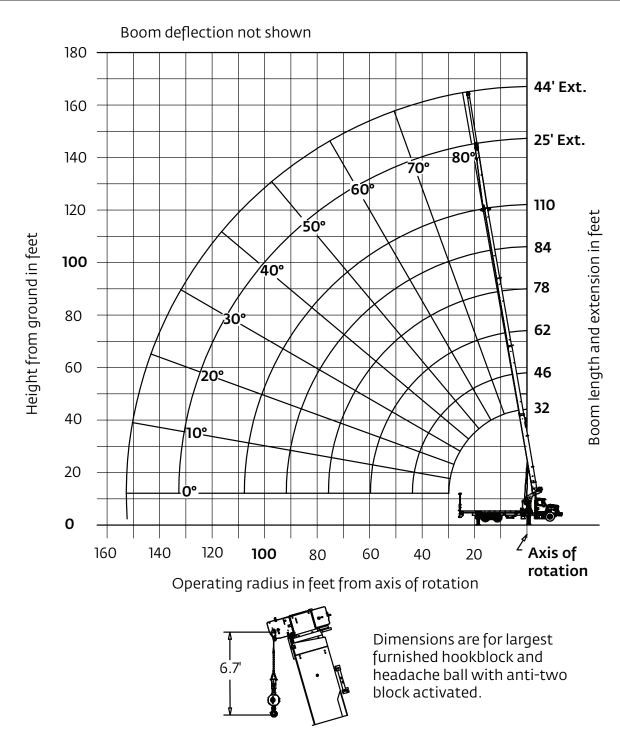
Radius in	25 ft LENGTH	44 ft LENGTH
feet	#03	#04
35	4900 (77.9)	
40	4500 (76.5)	
45	4050 (73.7)	2500 (75.9)
50	3700 (71.2)	2500 (74.3)
55	3400 (68.7)	2500 (72.4)
60	3150 (66.2)	2300 (70.2)
65	3000 (63.7)	2200 (68.1)
70	2700 (60.7)	2100 (66)
75	2250 (57.5)	2000 (63.8)
80	1800 (53.9)	1850 (61.3)
85	1350 (50.2)	1800 (59)
90	1000 (46.2)	1500 (56)
95	700 (42.4)	1200 (52.8)
100		900 (49.5)
105		600 (46)
110		500 (42.8)
Min. boom angle for indicated length (no load)	36°	40°
Max. boom length at 0° boom angle (no load)	72 ft	72 ft

80031508

NOTE: Loads displayed in pounds. ( ) Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions.

# Working range

### 110 ft main boom, full span outrigger, with 25 ft - 44 ft jib



\*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.

## 110 ft main boom, full span outrigger, without jib

Maximum boom   Maximum	Radius	#01					
10	in		М	ain boom	length in	eet	
6       (76.7)   <th>leet</th> <th>32</th> <th>46-A</th> <th>62-B</th> <th>78-C</th> <th>94-D</th> <th>110</th>	leet	32	46-A	62-B	78-C	94-D	110
8	6	,					
10	8	(72.5)					
12	10		,				
15	12						
14,900	15	. ,	,	(76.1)	(80)		
12	20	(45.9)	(62.5)	(71.1)	(76.4)	(80)	
30	25		(55)	(65.9)	(72.4)	(76.8)	(79.3)
19	30		(46.3)	(60.8)	(68.2)	(73.4)	(76.5)
40 (23.9) (48.5) (59.6) (66.7) (71.2)  45 (65.0) (66.7) (70.2)  50 (55.4) (63.3) (68.7)  50 (34) (55.4) (50.4) (63.3) (68.7)  50 (34) (55.4) (50.4) (59.4) (65.6)  55 (430) (450) (55.4) (62.3)  60 (30) (30) (51.3) (58.9)  65 (30) (30) (3100 (32.1) (46.8) (55.4)  70 (30) (32.1) (46.8) (55.4)  70 (30) (30) (30) (30.9) (51.8)  75 (30) (30) (30.9) (48.1)  80 (30) (30) (30.9) (44.2)  85 (30) (30) (30.9) (44.2)  86 (30) (30) (30.9) (44.2)  87 (30) (30) (30.9) (30.9)  90 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9) (30.9)  100 (30) (30) (30.9)  100 (30) (	35						
100   100	40			(48.5)	(59.6)	(66.7)	(71.2)
50         (34)         (50.4)         (59.4)         (65.6)           55         4300 (23.8)         4550 (45)         4700 (55.4)         4900 (62.3)           60         3700 (39)         3800 (51.3)         4000 (58.9)           65         3000 (32.1)         (46.8)         (55.4)           70         2350 (23.5)         (25.5)         2700 (51.8)           75         2050 (36.9)         2200 (36.9)         (48.1)           80         1650 (30.9)         1750 (30.9)         1400 (39.9)           90         900 (11.9)         1050 (35.2)         150 (29.9)           100         500 (23.4)         500 (23.4)         500 (23.4)	45						
55       (23.8)       (45)       (55.4)       (62.3)         60       3700       3800       4000       (58.9)         65       3000       3100       3300       (55.4)         70       2350       2550       2700       (51.8)         75       2050       2200       (36.9)       (48.1)         80       1650       (30.9)       (44.2)         85       2050       (23.4)       (39.9)         90       1050       (39.9)       1050         (19.9)       750       (29.9)         100       100       100       100       100	50			(34)	(50.4)	(59.4)	(65.6)
60 (39) (51.3) (58.9) 65 3000 (32.1) (46.8) (55.4) 70 22350 (23.5) (42.1) (51.8) 75 2250 (23.5) (42.1) (51.8) 80 2250 (36.9) (48.1) 85 260 (23.4) (30.9) (44.2) 85 270 (23.4) (30.9) (44.2) 90 90 (10.50 (30.9) (10.50 (30.9) (10.50 (30.9)) 100 80 80 80 80 80 80 80 80 80 80 80 80 8	55						
65       (32.1)       (46.8)       (55.4)         70       2350       2550       2700       (51.8)         75       2050       (36.9)       2200       (48.1)         80       1650       1750       (30.9)       (44.2)         85       1250       (23.4)       (39.9)         90       900       1050       (39.9)         95       100       100       100       100       100         Minimum boom angle (°) for indicated length (no load)       0       0	60						
70     (23.5)     (42.1)     (51.8)       75     2050 (36.9)     2200 (48.1)       80     1650 (30.9)     1750 (44.2)       85     1250 (23.4)     1400 (23.4)     19.9)       90     900 (11.9)     1050 (35.2)     1050 (35.2)       95     750 (29.9)     1050 (23.4)     1050 (29.9)       100     500 (23.4)     1050 (23.4)     1050 (23.4)       Minimum boom angle (°) for indicated length (no load)     0	65					(46.8)	
1650   1750   (48.1)   1650   1750   (44.2)   185   1250   (23.4)   (39.9)   190   1050   (35.2)   190   100   1	70					(42.1)	(51.8)
80     (30.9)     (44.2)       85     1250     1400       (39.9)     (39.9)       90     900     1050       (11.9)     (35.2)       95     750     (29.9)       100     500     (23.4)       Minimum boom angle (°) for indicated length (no load)     0	75					(36.9)	(48.1)
90 (23.4) (39.9) 90 (11.9) 1050 (35.2) 95 (29.9) 100 (23.4) (39.9) 100 (23.4) (39.9)	80					(30.9)	(44.2)
90 (11.9) (35.2) 95 750 (29.9) 100 500 (23.4) Minimum boom angle (°) for indicated length (no load) 0	85					(23.4)	(39.9)
95 (29.9) 100 500 (23.4) Minimum boom angle (°) for indicated length (no load) 0	90						(35.2)
Minimum boom angle (°) for indicated length (no load) 0	95						(29.9)
Maximum boom length (ft) at 0° boom angle (no load)	<u> </u>	Minimum boom angle (°) for indicated length (no load)					
NOTE: Loads displayed in pounds ( ) Room angles are in degrees							110

NOTE: Loads displayed in pounds. ( ) Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions \*This capacity requires optional 9/16" dia. 6x25 IWRC cable.

Lifting capacities at zero degree boom angle							
Boom	Main boom length in feet						
angle	32	46-A	62-B	78-C	94-D		
0°	8000 (29.5)	4800 (43.5)	2600 (59.5)	1200 (75.5)	850 (91.5)		

NOTE: () Reference radii in feet.

	Rated Load Reductions from main boom capacity when lifting over main boom nose with ext. erected (retracted):							
I	(lb) 2100 1900 1800 1750 1700 1650							

## 110 ft main boom, full span outrigger, with 25 ft - 44 ft jib

Radius	#02						
in		Main boom length in feet					
feet	32	46-A	62-B	78-C	94-D	110	
6	*59,200 (76.7)						
8	42,200 (72.5)	28,500 (78.6)					
10	35,100 (68.5)	28,400 (76.1)					
12	31,200 (64.4)	27,400 (73.6)	27,550 (78)				
15	26,200 (57.9)	23,400 (69.5)	22,550 (76.1)	19,150 (80)			
20	18,700 (45.9)	17,700 (62.5)	17,050 (71.1)	17,150 (76.4)	16,000 (80)		
25	14,100 (30.6)	13,900 (55)	13,600 (65.9)	13,650 (72.4)	13,400 (76.8)	10,200 (79.3)	
30		11,400 (46.3)	11,150 (60.8)	11,150 (68.2)	11,050 (73.4)	8900 (76.5)	
35		8850 (36.2)	9350 (54.8)	9350 (64)	10,300 (70.1)	8700 (74.1)	
40		6650 (23.9)	7650 (48.5)	7950 (59.6)	8150 (66.7)	7450 (71.2)	
45			6100 (42)	6650 (55.4)	6600 (63.3)	6700 (68.7)	
50			4850 (34)	5200 (50.4)	5350 (59.4)	5650 (65.6)	
55			3850 (23.8)	4200 (45)	4400 (55.4)	4650 (62.3)	
60				3350 (39)	3500 (51.3)	3750 (58.9)	
65				2650 (32.1)	2800 (46.8)	3050 (55.4)	
70				2000 (23.5	2250 (42.1)	2450 (51.8)	
75					1750 (36.9)	1950 (48.1)	
80					1350 (30.9)	1500 (44.2)	
85					950 (23.4)	1150 (39.9)	
90					600 (11.9)	800 (35.2)	
95						500 (29.9)	
100						250 (23.4)	
М	inimum boo	m angle (°)	for indicate	d length (no	load)	0	
Maximum boom length (ft) at 0° boom angle (no load)						110	

NOTE: Loads displayed in pounds. () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions. \*This capacity requires optional 9/16" dia. 6x25 IWRC cable.

Lifting capacities at zero degree boom angle							
Boom	Main boom length in feet						
angle	32	46-A	62-B	78-C	94-D		
0°	7,200 (29.5)	4,200 (43.5)	2,150 (59.5)	850 (75.5)	550 (91.5)		

NOTE: () Reference radii in feet.

Radius	25 ft LENGTH	44 ft LENGTH
in feet	#03	#04
40	4400 (77.4)	
45	4400 (75.8)	2800 (78.3)
50	4100 (73.6)	2700 (76.7)
55	3800 (71.3)	2650 (75.1)
60	3500 (69)	2500 (73.2)
65	3250 (66.6)	2300 (71.1)
70	2900 (63.9)	2200 (69.2)
75	2200 (61.3)	1900 (67)
80	1550 (58)	1600 (64.8)
85	1200 (54.7)	1550 (62.8)
90	850 (51.4)	1400 (60.5)
95		1000 (58)
100		750 (54.7)
Min. boom angle for indicated length (no load)	44°	52°
Max. boom length at 0° boom angle (no load)	62 ft	62 ft

8003143 4

NOTE: Loads displayed in pounds. () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions.

#### Boom extension capacity notes:

- 1. All capacities above the bold line are based on structural strength of boom extension.
- 2. 25 ft and 44 ft extension lengths may be used for single line lifting service.
- 3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. For boom angles not shown, use the rating of the next lower angle. Warning: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- 5. Capacities listed are with outriggers properly extended and vertical jacks set.
- 6. When lifting over the main boom nose with 25 ft and 44 ft extension erected, the outriggers must be fully extended or 50% (14 ft) spread.

# Accessories

#### Radio Remote Controls -

Eliminate the handling and maintenance concerns that accompany cabled remotes. Operate to a range of about 76 m (250 ft), varying with conditions.

• NB4R

#### Heavy-duty Personnel Basket -

544 kg (1200 lb) capacity steel basket with safety loops for two passengers. Gravity leveling 183 cm x 107 cm (72 in x 42 in) platform. Fast attachment and secure locking systems. Load chart must show 1043 kg (2300 lb) minimum to operate this accessory.

• BSA-1

• BSA-R1 (provides rotation)

• BSAY-1

• BSAY-2

Last Layer Indicator Option on winch with indicator on Easy Reach console.

• LLI

### Single Front Outrigger

Center front stabilizer with a 25 in vertical stroke

• SFO

Bulkhead-steel for super-duty beds

• BHSD

## **Hinged Vandal Cover Protector**

With keyed lock for LMI display.

• VCP

17 Series NBT30H

# Notes

# **Notes**

Series NBT30H



## **Manitowoc Cranes**

## Regional headquarters

#### **Americas**

Manitowoc, Wisconsin, USA Tel: +1 920 684 6621 Fax: +1 920 683 6277

Shady Grove, Pennsylvania, USA

Tel: +17175978121 Fax: +17175974062

### Europe, Middle East, Africa

Ecully, France Tel: +33 (0)4 72 18 20 20

#### Shanghai, China Tel: +86 21 6457 0066 Fax: +33 (0)4 72 18 20 00 Fax: +86 21 6457 4955

China

#### **Greater Asia-Pacific**

Singapore Tel: +65 6264 1188 Fax: +65 6862 4040

## **Regional offices**

#### **Americas**

Brazil Alphaville Mexico Monterrey Chile Santiago

## Europe, Middle East,

Africa Czech Republic Netvorice France Baudemont Cergy Decines Germany Langenfeld Hungary **Budapest** Italy Lainate Netherlands Breda

**Poland** Warsaw Portugal Baltar Russia Moscow U.A.E. Dubai U.K.

Buckingham

#### China

Beijing Chengdu Guangzhou Xian

### **Greater Asia-Pacific**

Australia Adelaide Brisbane Melbourne Sydney India Calcutta Chennai Delhi Hyderabad Pune Korea Seoul Philippines Makati City Singapore

### **Factories**

Brazil Alphaville China TaiAn Zhangjiagang France Charlieu Moulins

Germany Wilhelmshaven India Pune Italy Niella Tanaro **Portugal** Baltar Fânzeres Slovakia

Saris

USA Manitowoc Port Washington Shady Grove

This document is non-contractual. Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.