### **Features**



#### Outriggers

Outrigger span of 7,52 m (24.7 ft) when fully extended; 5,33 m (17.5 ft) at mid-span.

Equipped with both ground level and in-cab outrigger controls, the NBT45 outriggers allow quick and easy crane set-up and can be positioned at 0%, 50% and 100%.



### Five-section boom

At 49,07m (161 ft), the NBT45 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), 38,71 m (127 ft) and 43,29 m (142 ft).

#### **National Crane Series NBT45**

- 40,8 t (45 USt) maximum capacity
- 51,2 m (168 ft) maximum tip height (main boom)
- 62,8 m (206 ft) maximum tip height (boom with jib)

## Deluxe operator's cab

Rigid galvanized steel structure, well insulated, with tinted safety glass for operator visibility and comfort. Multiposition 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

All National Crane boom trucks are equipped with overload protection. A Load Moment Indicator (LMI) is standard on all NBT45 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).

### **Features**

### National Crane is proud to introduce the Series NBT45

- The stronger standard torsion box improves rigidity, reduces truck frame flex and reduces the need for counterweight
- 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 simplify rigging changes by decreasing the time needed to change line reeving
- Painting crane components before assembly reduces the possibility of rust, improves serviceability and enhances the appearance of the machine
- State of the art control valve provides smoother operation. The new design eliminates parts, reducing repair costs and improving the machines serviceability
- Bearings on the boom 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
- Two-speed grooved drum hoist with cable packer, electronic drum rotation indicator (DRI)



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## **Specifications**

#### Boom and jib combinations data

#### Available in four basic models:

**NBT45 - 103**: Equipped with a 9,45 m - 31,39 m (31 ft - 103 ft) four-section boom. This model can be equipped with a 9,45 m (31 ft) jib, offering a vertical reach of 43,29 m (142 ft) or a 9,45 m - 16,76 m (31 ft- 55 ft) side-stowing foldaway jib, providing a vertical reach of 50,60 m (166 ft).

9,45 m - 31,39 m (31 ft - 103 ft) four-section hydraulic boom

**18FJ31OS** 9,45 m (31 ft) single-section offsettable manual jib

9,45 m - 31,39 m (31 ft - 103 ft) four-section hydraulic boom

**18FJ55M** 9,45 m - 16,76 m (31 ft - 55 ft) two-section manual jib

**NBT45-127**: Equipped with a 9,45 m - 38,71 m (31 ft - 127 ft) five-section boom. This model can be equipped with a 9,45 m - 16,76 m (31 ft - 55 ft) fold-away jib offering a vertical reach of 57,91 m (190 ft).

9,45 m - 38,71 m (31 ft - 127 ft) five-section hydraulic boom

**18FJ55M** 9,45 m - 16,76 m (31 ft - 55 ft) two-section manual jib

**NBT45 - 142**: Equipped with a 10,36 m - 43,29 m (34 ft - 142 ft) five-section boom. This model can be equipped with a 7,92 m (26 ft) foldaway jib, offering a vertical reach of 53,64 m (176 ft) or a 9,45 m - 16,76 m (31 ft - 55 ft) side-stowing foldaway jib, providing a vertical reach of 62,48 m (205 ft).

10,36 m - 43,29 m (34 ft - 142 ft) five-section hydraulic boom

**18FJ26** 7,92 m (26 ft) single-section manual jib

10,36 m - 43,29 m (34 ft - 142 ft) five-section hydraulic boom

**18FJ55M** 9,45 m - 16,76 m (31 ft - 55 ft) two-section manual jib

**NBT45 - 161**: Equipped with a 11,6 m - 49,1 m (37.9 ft - 161 ft) five-section boom. This model can be equipped with a 11,6 m (38 ft) side-stowing foldaway jib, providing a vertical reach of 62,8 m (206 ft).

11,6 m - 49,1 m (37.9 ft - 161 ft) five-section hydraulic boom

18FJ38 11,6 m (38 ft) single-section manual jib

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

## **Specifications**

#### NBT45 winch data

- All winch pulls and speeds 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.

Cable

supplied

5/8" diameter rotation resistant IWRC

rotation

resistant IWRC Average

breaking

25 583 kg (56,400 lb)

25 583 kg (56,400 lb)

125 m/min

Standard

planetary

winch

Low speed

High speed

Γ	1 part line	2 part line	3 part line	4 part line	5 part line	6 part line	7 part line	8 part line
	Max. pull							
	5103 kg	10 206 kg	15 309 kg	20 412 kg	25 515 kg	30 618 kg	35 721 kg	40 824 kg
	(11,250 lb)	(22,500 lb)	(33,750 lb)	(45,000 lb)	(56,250 lb)	(67,500 lb)	(78,750 lb)	(90,000 lb)
	62 m/min	31 m/min	21 m/min	16 m/min	13 m/min	10 m/min	9 m/min	8 m/min
	(205 fpm)	(103 fpm)	(68 fpm)	(51 fpm)	(41 fpm)	(34 fpm)	(29 fpm)	(26 fpm)
	2268 kg	4536 kg	6804 kg	9072 kg	11 340 kg	13 608 kg	15 876 kg	18 144 kg
	(5000 lb)	(10,000 lb)	(15,000 lb)	(20,000 lb)	(25,000 lb)	(30,000 lb)	(35,000 lb)	(40,000 lb)

31 m/min

(103 fpm)

25 m/min

(82 fpm)

21 m/min

18 m/min

(59 fpm)

16 m/min

Winch	Fourth layer pull	Allowable cable pull
Standard planetary and auxiliary planetary	2268 kg (5000 lb) high speed 5103 kg (11,250 lb) low speed	5117 kg (11,280 lb) 5117 kg (11,280 lb)

62 m/min

(205 fpm)

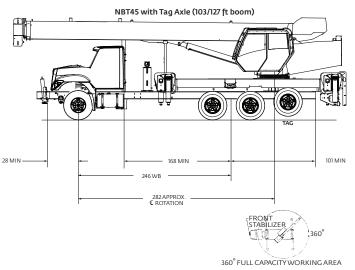
42 m/min

(137 fpm)

Block type	Rating	Weight
Aux boom head		45 kg (100 lb)
Downhaul weight	4,53 USt (7 USt)	78 kg (172 lb)
1-sheave block	13,60 t (20 USt)	149 kg (329 lb)
2-sheave block	22,67 t (30 USt)	290 kg (640 lb)
3-sheave block	31,74 t (40 USt)	272 kg (600 lb)
4-sheave block	32,65 t (50 USt)	361 kg (796 lb)

# **Mounting configurations**

The configurations are based on the Series NBT45 with 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 since individual truck chassis vary.



### Configuration 1: 31,39 m (103 ft) or 38,71 m (127 ft) Boom with Tag Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Tag Axle Weight Rating: 5987 kg (13,200 lb)

Wheelbase: 625 cm (246 in)

Cab to Axle/trunnion (CA/CT): 427 cm (168 in)

Frame Section Modulus (SM), front axle to end of AF: 785 MPa

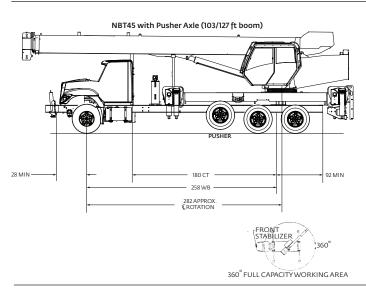
(110,000 PSI): 426 cm3 (30.0 in3)

Stability Weight, Front: 4286 kg (9450 lb) minimum\*

Stability Weight, Rear: 4899 kg (10,800 lb) minimum\*

This configuration shows the 360° working area that is achieved with the front stabilizer (standard on the Series NBT45). The front stabilizer is essential when extending the boom and lifting loads over the front of the truck. NOTE: Chassis will require extended front frame rails for SFO mounting.

\*Estimated axle scale weights prior to installation of crane, stabilizers and subbase for 85% stability.



### Configuration 2: 31,39 m (103 ft) or 38,71 m (127 ft) Boom with Pusher Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Pusher Axle Weight Rating: 5987 kg (13,200 lb)

Wheelbase: 655 cm (258 in)

Cab to Axle/trunnion (CA/CT): 457 cm (180 in)

Frame Section Modulus (SM), front axle to end of AF: 785 MPa

(110,000 PSI):  $426 \text{ cm}^3$  (30.0 in<sup>3</sup>)

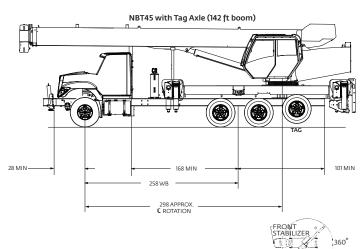
Stability Weight, Front: 4525 kg (9975 lb) minimum\*

Stability Weight, Rear: 4661 kg (10,275 lb) minimum\*

This configuration shows the 360° working area that is achieved with the front stabilizer (standard on the Series NBT45). The front stabilizer is essential when extending the boom and lifting loads over

the front of the truck. NOTE: Chassis will require extended front frame rails for SFO mounting.

\*Estimated axle scale weights prior to installation of crane, stabilizers and subbase for 85% stability.



#### Configuration 3: 43,29 m (142 ft) Boom with Tag Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Tag Axle Weight Rating: 5987 kg (13,200 lb)

Wheelbase: 655 cm (258 in)

Cab to Axle/trunnion (CA/CT): 427 cm (168 in)

Frame Section Modulus (SM), front axle to end of AF: 785 MPa

(110,000 PSI): 426 cm<sup>3</sup> (30.0 in<sup>3</sup>)

Stability Weight, Front: 4207 kg (9275 lb) minimum\*

Stability Weight, Rear: 4797 kg (10,575 lb) minimum\*

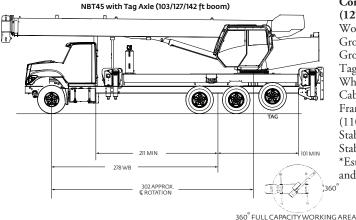
This configuration shows the 360° working area that is achieved with the front stabilizer (standard on the Series NBT45). The front stabilizer is essential when extending the boom and lifting loads over the front of the truck. NOTE: Chassis will require extended front

frame rails for SFO mounting.

360° FULL CAPACITY WORKING AREA

\*Estimated axle scale weights prior to installation of crane, stabilizers and subbase for 85% stability.

## Mounting configurations



#### Configuration 4: Extended T-box 31,39 m (103 ft), 38,71 m (127 ft) or 43,29 m (142 ft) Boom with Tag Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Tag Axle Weight Rating: 5987 kg (13,200 lb)

Wheelbase: 686 cm (270 in)

Cab to Axle/trunnion (CA/CT): 516 cm (203 in)

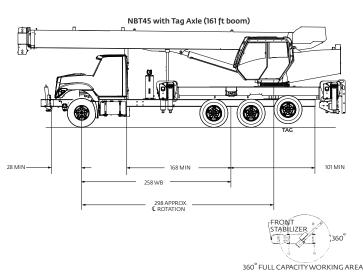
Frame Section Modulus (SM), front axle to end of AF: 785 MPa

(110,000 PSI): 426 cm<sup>3</sup> (30.0 in<sup>3</sup>)

Stability Weight, Front: 4309 kg (9500 lb) maximum\*

Stability Weight, Rear: 5103 kg (11,250 lb) minimum\*

\*Estimated axle scale weights prior to installation of crane, stabilizers and subbase for 85% stability.



#### Configuration 5: 49,1 m (161 ft) Boom with Tag Axle

Working area: 360°

Gross Axle Weight Rating Front: 9072 kg (20,000 lb)

Gross Axle Weight Rating Rear: 18 144 kg (40,000 lb)

Tag Axle Weight Rating: 5987 kg (13,200 lb)

Wheelbase: 655 cm (258 in)

Cab to Axle/trunnion (CA/CT): 427 cm (168 in)

Frame Section Modulus (SM), front axle to end of AF: 785 MPa

(110,000 PSI): 426 cm<sup>3</sup> (30.0 in<sup>3</sup>)

Stability Weight, Front: 4207 kg (9275 lb) minimum\*

Stability Weight, Rear: 4797 kg (10,575 lb) minimum\*

This configuration shows the 360° working area that is achieved with the front stabilizer (standard on the Series NBT45). The front stabilizer is essential when extending the boom and lifting loads over the front of the truck. NOTE: Chassis will require extended front

frame rails for SFO mounting.

\*Estimated axle scale weights prior to installation of crane, stabilizers and subbase for 85% stability.

#### Other configurations are available, please consult the factory for more information.

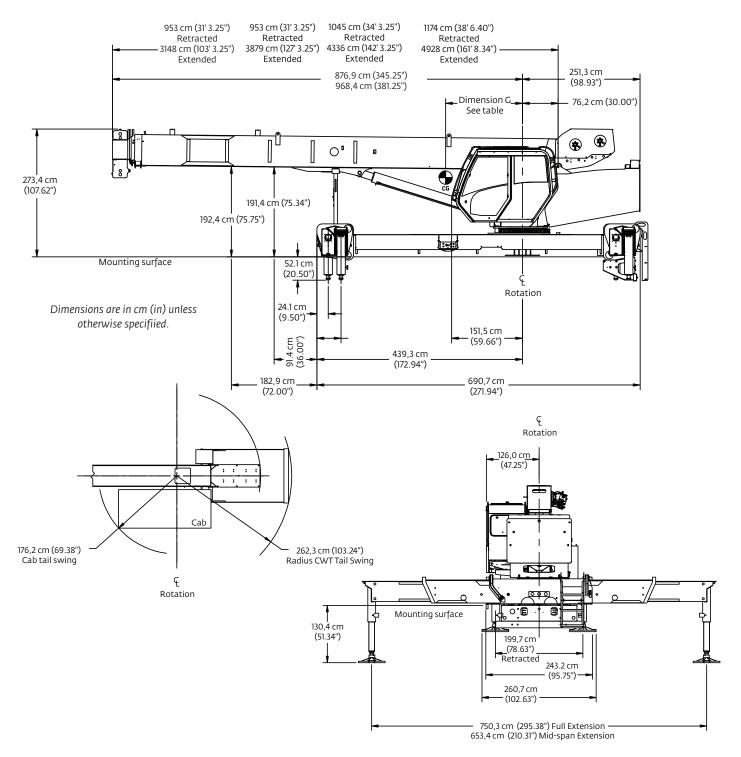
#### Mimimum truck requirements

Many factors must be considered in the selection of proper truck for a NBT45 series crane. Items which must be considered are:

- 1. Axle Rating. Axle ratings are determined by the axles, tires, rims, springs, brakes, steering and frame strength of the truck. If any one of these components is below the required rating, the gross axle rating is reduced to its weakest component value.
- 2. Wheelbase (WB), Cab-to-Trunnion (CT) and Bare Chassis Weight. The wheelbase, CT and chassis weights shown are required so the basic NBT45 can be legally driven in most states and meet stability requirements. The dimensions given assume the sub-base is installed properly behind the truck cab. If exhaust stacks, transmission protrusions, etc., do not allow a close installation to the cab, the WB and CT dimensions must be increased. Refer to the Mounting Configuration pages for additional information.
- 3. Truck Frame. Try to select a truck frame that will minimize or eliminate frame reinforcement or extension of the after frame (AF). Many frames are available that have the necessary after frame (AF) section modulus (SM) and resistance to bending moment
- (RBM) so that reinforcing is not required. The front hydraulic jack is used for a 360' working range around the truck. The frame under the cab through the front suspension must have the minimum S.M. and RBM because reinforcing through the front suspension is often difficult because of engine, radiator mounts and steering mechanics. See "Truck Requirements" and "Frame Strength" pages for the necessary section modulus and resistance to bending moment values. Integral extended front frame rails are required for front center
- 4. Additional Equipment. In addition to the axle ratings, wheelbase, cab-to-axle requirements and frame, it is recommended that the truck is equipped with electronic engine control, increased cooling and a transmission with a PTO opening available with an extra heavy duty PTO. A conventional cab truck should be used for standard crane mounts.
- 5. Neutral Start Switch. The chassis must be equipped with a switch that prevents operation of the engine starter when the transmission is in gear

- Gross Vehicle Weight Rating (GVWR) is dependent on all components of the vehicle (axles, tires, springs, frame, etc.) meeting manufacturers' recommendations; always specify GVWR when purchasing trucks
- · Diesel engines require a variable speed governor for smooth crane operation; electronic fuel injection requires EET engine remote throttle
- All mounting data is based on a National Crane Series NBT45 with 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 per SAE J765; contact the factory for details

## **Dimensions**

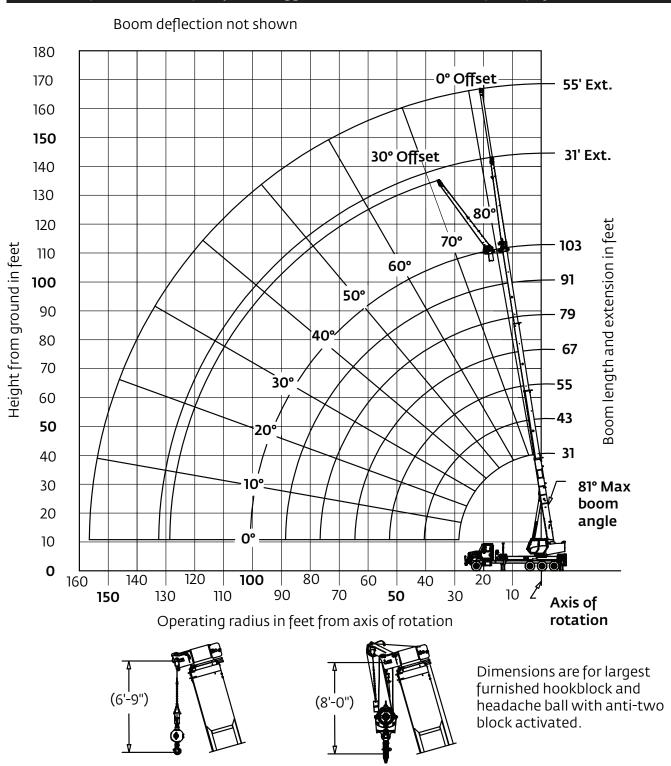


Weight/CG Data						
Series	Dimension G	Weight with oil				
NBT45103	132,1 mm (52 in)	17 998 kg (39,679 lb)				
NBT45127	142,2 mm (56 in)	18 592 kg (40,989 lb)				
NBT45142	162,6 mm (64 in)	19 180 kg (42,284 lb)				
NBT45161	195,6 mm (77 in)	19 978 kg (44,045 lb)				

No jib, no auxiliary hoist, with 2/3 hookblock.

## Working range

#### 31,39 m (103 ft) main boom, full span outrigger, with 9,45 m - 16,76 m (31 ft - 55 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.

### 31,39 m (103 ft) main boom, full span outrigger, without jib

Radius	#01						
in feet	Main boom length in feet						
leer	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)
		m boom ang					0
	Maximu	m boom len	gth (ft) at C	° boom ang	le (no load)		103

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

#LIMI operating code. Refer to LIMI manual for operating instructions.							
Lifting capacities at zero degree boom angle							
Boom	Main boom length in feet						
angle	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)	1600 (100.5)
NOTE: ( )	Reference	radii in feet					80026252
	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

#### 31,39 m (103 ft) main boom, full span outrigger, with 9,45 m - 16,76 m (31 ft - 55 ft) jib

Radius	#02						
in	Main boom length in feet						
feet	31	43-A	55-B	67-C	79-D	91-E	103
7	89,200						
	(73.6)	50.350					
8	81,200 (71.6)	50,350 (76.9)					
	69.150	50.350	49.550				
10	(67.6)	(74.1)	(78)				
	57,200	49,350	46,550	36,600			
12	(63.4)	(71.2)	(75.8)	(78.7)			
15	44,900	45,400	39,550	35,600	32,650		
15	(56.9)	(66.9)	(72.5)	(76.1)	(78.7)		
20	32,350	32,900	33,250	33,400	28,650	18,200	18,250
	(44.5)	(59.1)	(66.8)	(71.7)	(75.1)	(77.3)	(79.5)
25	24,600	25,150	25,600	25,750	25,900	17,700	17,250
	(28)	(50.7)	(60.8)	(66.9)	(71.2)	(74.2)	(76.8)
30		20,000 (40.9)	20,400 (54.4)	20,600 (62)	20,700 (67.2)	17,200 (71)	16,250 (74)
		15,550	16.000	16.250	16,400	15,900	14,750
35		(28.6)	(47.5)	(56.9)	(63.1)	(67.6)	(71.1)
		(20.0)	12,750	12,950	13,100	13,300	13,250
40			(39.6)	(51.4)	(58.8)	(64.1)	(68.2)
45			10,450	10,650	10,800	10,850	11,000
45			(30)	(45.5)	(54.2)	(60.4)	(65.1)
50			8550	8800	8950	9100	9250
50			(17.5)	(39.5)	(49.9)	(56.9)	(62.1)
55				7300	7450	7600	7750
				(31.8)	(44.7)	(52.8)	(58.7)
60				6100 (21.7)	6250	6400	6500
				(21.7)	(39) 5250	(48.5) 5400	(55.1) 5500
65					(32.4)	(43.9)	(51.4)
					4400	4550	4650
70					(24.3)	(38.8)	(47.5)
75					3650	3800	3950
75					(11.2)	(33.1)	(43.3)
80						3200	3300
00						(26.3)	(38.8)
85						2650	2750
						(16.8)	(33.7)
90							2300 (27.8)
							1850
95							(20.2)
							1450
100							(4.7)
	Minimu	m boom and	gle (°) for inc	dicated leng	th (no load)		0
			gth (ft) at 0				103

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

	Lifting capacities at zero degree boom angle							
Boom		Main boom length in feet						
angle	31	43-A	55-B	67-C	79-D	91-E	103	
0°	21,050	12,500	8000	5250	3500	2350	1350	
U	(28.5)	(40.5)	(52.5)	(64.5)	(76.5)	(88.5)	(100.5)	
NOTE: ()	NOTE: ( ) Reference radii in feet. 80026255							

NOTE: ( ) Rejerence radii iir jeet. 80020233							
Rated Load Reductions from main boom capacity when lifting over main boom nose with :							
tele. erected (retracted)		2150	2000	1950	1900	1850	1800
31' off. erected at 0° offset	1800	1700	1550	1500	1450	1450	1400

Radius in	0° OFFSET
feet	#06
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)
ПО	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	30° OFFSET
feet	#09
39	6400 (80)
50	5700 (75)
60	5000 (70)
70	4200 (65)
79	3600 (60)
87	3000 (55)
95	2500 (50)
102	2000 (45)
108	1550 (40)
П3	1200 (35)
П8	1000 (30)
122	750 (25)
124	650 (21)
Min. boom angle for indicated length (no load)	20°
Max. boom length at 0° boom angle (no load)	103 ft

80026258A

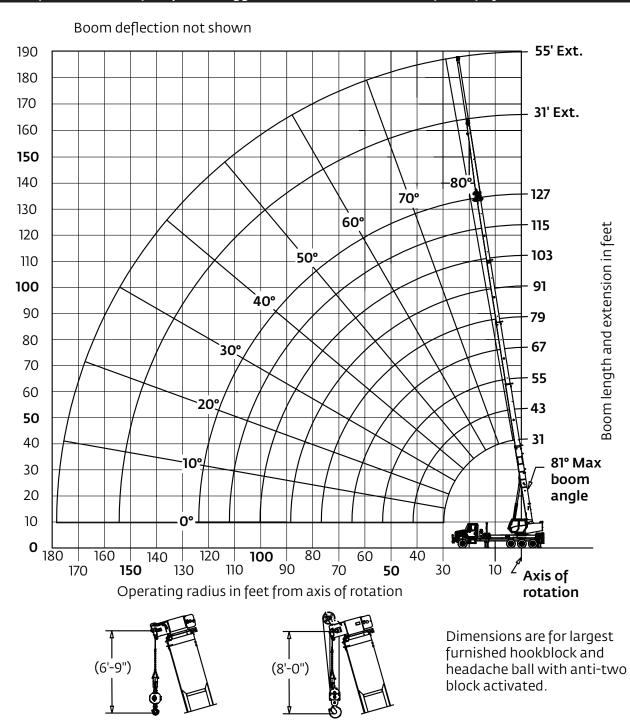
NOTE: Loads displayed in pounds. () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for operating instructions.

### Boom extension capacity notes:

- All capacities above the bold line are based on structural strength of boom extension.
- 2. 31 ft offsettable extension length may be used for single line lifting service
- 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.
- 6. When lifting over the main boom nose with 31 ft offsettable extension erected, the outriggers must be fully extended or 50% (17.5 ft) spread.

## Working range

#### 38,71 m (127 ft) main boom, full span outrigger, with 9,45 m - 16,76 m (31 ft - 55 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.

Height from ground in feet

### 38,71 m (127 ft) main boom, full span outrigger, without jib

To   To   To   To   To   To   To   To	Radius					#01				
7   30,000   (73,6)					Main b	oom leng	th in feet			
8 81,400 (71.6)   10 (69,600   41,000 (74.2)   12 (57,600   41,000 (75.8)   76.8)   76.8)   12 (57,600   41,000 (63.4)   71.4)   77.2)   77.20 (73.6)   77.2)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.2)   77.20 (73.6)   77.20 (73.6)   77.2)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.6)   77.20 (73.7)   77.20 (73.	leer		43-A	55-B	67-C	79-D	91-E	103-F	115-G	127
8	7									
10	8									
15	10									
15	12									
20	15									
25	20	32,700	33,200	33,600	33,400	25,100	19,400			
30	25	24,900	25,450	25,900	26,100	22,200	17,250	14,950	12,600	10,000 (79.9)
16,450	30	(27.0)	20,250	20,700	20,900	20,150	15,650	13,700	11,800	9900 (77.9)
13,450	35		16,450	16,950	17,100	17,300	14,450	12,650	10,950	9500 (75.8)
11,050	40		(23.1)	13,450	13,650	13,850	13,250	11,600	10,300	9000 (73.6)
50         9100 (18.5)         9400 (39.8)         9550 (50)         9700 (56.8)         9850 (62) (65.9)         800 (65.9)         (66.9)         (66.9)         (65.9)         (66.9)         (66.9)         (66.9)         (66.9)         (66.9)         (66.9)         (66.9)         (66.9)         (66.0)         (67.0)         (67.0)         (67.0)         (67.0)         (67	45			11,050	11,200	11,350	11,500	10,700	9600	8600 (71.4)
55         7850 (32.2)         8050 (44.8)         8150 (52.7)         8300 (58.6)         8350 (63.1)         766 (60.1)           60         6600 (22.3)         6600 (39.2)         6900 (48.4)         7050 (55.1)         7150 (60.1)         726 (64.1)           65         7750 (32.7)         5900 (32.7)         6000 (51.4)         6100 (57)         62           70         4900 (24.7)         5000 (38.9)         5,150 (47.5)         5200 (53.7)         53           75         4150 (12.4)         4300 (33.2)         4400 (43.3)         4400 (43.3)         450 (50.3)         450 (52.8)           80         3650 (26.5)         3750 (38.8)         3800 (46.8)         350 (52.8)         3800 (38.8)         3650 (46.8)         3250 (38.8)         330 (46.8)         430 (48.8)         440 (57.2)         440 (46.8)         450 (57.2)         440 (57.2)         440 (46.8)         450 (57.2)         450 (57.2)         450 (57.2)         450 (57.2)         450 (57.2)         450 (46.8)         450 (57.2)         450 (57.2)         460 (46.8)         450 (57.2)         460 (57.2)         460 (	50			9100	9400	9550	9700	9850	9000	8100 (69)
60         6600 (22.3)         6800 (39.2)         7050 (55.1)         7150 (60.1)         726 (60.1)         726 (60.1)         726 (60.1)         726 (60.1)         726 (60.1)         726 (60.1)         726 (60.1)         726 (60.1)         726 (60.1)         62 (60.1)	55			(10.3)	7850	8050	8150	8300	8350	7650
65         5750 (32.7)         5900 (43.9)         6000 (51.4)         6100 (57)         62           70         4900 (24.7)         5000 (38.9)         5,150 (47.5)         5200 (53.7)         53           75         4150 (12.4)         4300 (43.3)         4400 (43.3)         4450 (50.3)         45           80         3650 (26.5)         3750 (38.8)         3800 (46.8)         3,650 (26.5)         3200 (38.8)         3300 (43.3)         3,640 (43.3)           90         2700 (28) (38.9)         2750 (28) (38.9)         28 (20.6) (34.3)         24 (20.6) (34.3)         24 (20.6) (29.2)         200 (20.6) (7.1)         29.2 (29.2) (38         200 (20.9) (38.9)         200 (20.9) (38.9)         200 (20.9) (38.9)         200 (20.9) (38.9)         200 (20.9) (38.9)         200 (20.9) (38.9)         200 (20.9) (38.9)         200 (20.9) (38.9) (38.9)         200 (20.9) (38.9) (38.9)         200 (20.9) (38.9) (38.9) (38.9)         200 (20.9) (38.9)	60				6600	6800	6900	7050	7150	(66.7) 7200
100   1250   136	65				(22.3)	5750	5900	6000	6100	(64.2) 6200
(24.7) (38.9) (47.5) (58.7)						4900	5000	5,150	5200	(61.5) 5300
80	75					4150	4300	4400	4450	(58.6) 4550
85						(12.4)	3650	3750	3800	(55.7) 3,900
90							3050	3200	3250	(52.7)
95 (28) (38.9) (44 (20.6) (34.3) (42 (20.6) (34.3) (42 (20.7.1) (29.2) (38 (21.0) (29.2) (38 (22.9) (38 (22.							(17.4)	2700	2750	(49.5) 2850
100 (20.6) (34.3) (4.2) (4.2) (100 (100 (100 (100 (100 (100 (100 (10								2250	2,300	(46.2) 2400
105 (7.1) (29.2) (38 105 (22.9) (34 110 1250 136										(42.7) 2000
105 (22.9) (32 110 1250 136								(7.1)		(38.9) 1650
110   (12 0) (27										(34.8) 1300
100									(13.9)	(30.1)
115 (24	115		Minimum	boom angle	(°) for indic	ated length	(no load)			(24.7)
										127

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

#LIVIT OPE	FEMI operating code. Refer to EMI mandar for operating instructions.									
	Lifting capacities at zero degree boom angle									
Boom		Main boom length in feet								
angle	31	43 55 67 79 91 103 115								
0°	21,200 (28.5)	12,900 (40.5)								
NOTE: ()	Reference	ference radii in feet. 80025872								
Rated Load	ted Load Reductions from main boom capacity when lifting over main boom nose with ext. erected (retracted):									
(in lb)	2300	2150	2000	1950	1900	1850	1800	1750	1700	

#### 38,71 m (127 ft) main boom, full span outrigger, with 9,45 m - 16,76 m (31 ft - 55 ft) jib

Radius					#02				
in feet	21	43-A	FF-D		oom lengt		102-F	115-6	127
7	89,200 (73.6)	43-A	55-B	67-C	79-D	91-E	103-F	115-G	127
8	80,600 (71.6)								
10	68,800 (67.6)	40,350 (74.2)							
12	56,800 (63.4)	40,350 (71.4)	40,050 (75.8)	39,900 (78.8)					
15	44,500 (56.8)	38,350 (67)	40,050 (72.6)	36,900 (76.2)	28,350 (78.6)	21,550 (80.4)			
20	31,900 (44.4)	32,550 (59.4)	33,150 (66.9)	33,000 (71.7)	24,750 (74.9)	19,100 (77.2)	16,050 (79.2)	12,600 (80.7)	
25	24,100 (27.8)	24,800 (51)	25,450 (61)	25,700 (67)	21,850 (71.1)	16,950 (74)	14,700 (76.5)	12,350 (78.4)	9800 (79.9)
30		19,600 (41.4)	20,250 (54.6)	20,500 (62.1)	19,800 (67.2)	15,350 (70.8	13,450 (73.7)	11,550 (76)	9700 (77.9)
35		15,800 (29.4)	16,500 (47.8)	16,700 (57)	16,950 (63.1)	14,150 (67.4)	12,400 (70.8)	10,700 (73.7)	9300 (75.8)
40			13,000 (40)	13,250 (51.6)	13,500 (58.8)	12,950 (63.9)	11,350 (67.9)	10,050 (71.2)	8800 (73.6)
45			10,600 (30.6)	10,800 (45.7)	11,000 (54.3)	11,200 (60.3)	10,450 (65.1)	9350 (68.6)	8400 (71.4)
50			8650 (18.5)	9000 (39.8)	9200 (50)	9400 (56.8)	9600 (62)	8750 (65.9)	7900 (69)
55				7450 (32.2)	7700 (44.8)	7850 (52.7)	8050 (58.6)	8100 (63.1)	7450 (66.7)
60				6200 (22.3)	6450 (39.2)	6600 (48.4)	6800 (55.1)	6900 (60.1)	7000 (64.2)
65					5400 (32.7)	5600 (43.9)	5750 (51.4)	5850 (57)	6000 (61.5)
70					4550 (24.7)	4700 (38.9)	4900 (47.5)	4950 (53.7)	5100 (58.6)
75					3800 (12.4)	4000 (33.2)	4150 (43.3)	4200 (50.3)	4350 (55.7)
80						3350 (26.5)	3500 (38.8)	3550 (46.8)	3700 (52.7)
85						2750 (17.4)	2950 (33.8)	3000 (43)	3150 (49.5)
90							2450 (28)	2500 (38.9)	2650 (46.2)
95							2000 (20.6)	2050 (34.3)	2200 (42.7)
100							1600 (7.1)	1700 (29.2)	1800 (38.9)
105								1300 (22.9)	1450 (34.8)
110								1000 (13.9)	1100 (30.1)
115									800 (24.7)
		Minimu	m boom and	gle (°) for ind	licated leng	th (no load)			0
	Minimum boom angle (°) for indicated length (no load)  Maximum boom length (ft) at 0° boom angle (no load)								127

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

	Lifting capacities at zero degree boom angle									
Boom		Main boom length in feet								
angle	31	31 43 55 67 79 91 103 115								
0°	20,400 (28.5)									

NOTE: ( ) Reference radii in feet.

80026003

Radius in	31 ft LENGTH
feet	#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)	40.2°
Max. boom length at 0° boom angle (no load)	91 ft

Radius in	55 ft LENGTH
feet	#04
36	2200 (80)
54	2200 (75)
70	1600 (70)
85	1000 (65)
Min. boom angle for indicated length (no load)	42.8°
Max. boom length at 0° boom angle (no load)	91 ft

80025875

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

#### Boom extension capacity notes:

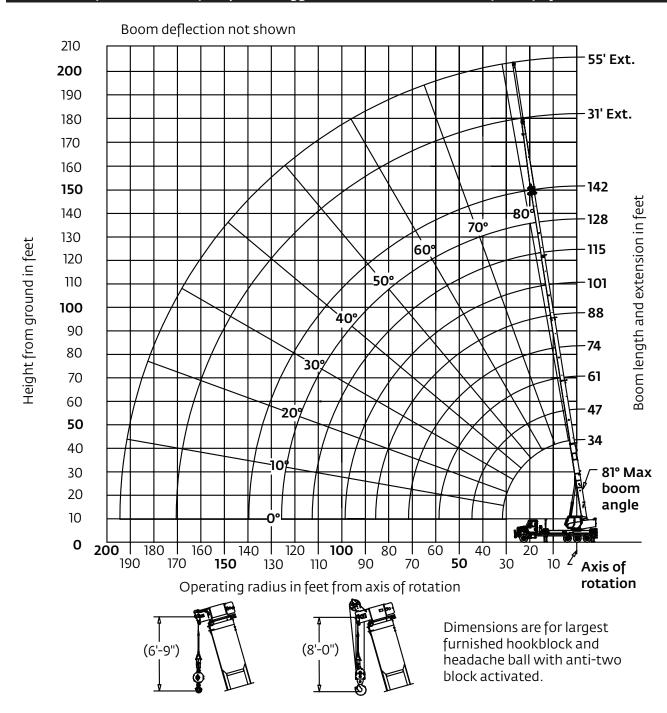
- 1. All capacities above the bold line are based on structural strength of boom extension.
- 2. 31 ft and 55 ft extension lengths may be used for single line lifting service
- 3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, 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.

- 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 31 ft or 55 ft extension erected, the outriggers must be fully extended or 50% (17.5 ft) spread.

## Working range

#### 43,29 m (142 ft) main boom, full span outrigger, with 9,45 m - 16,76 m (31 ft - 55 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.

### 43,29 m (142 ft) main boom, full span outrigger, without jib

Radius					#01				
in				Main b	oom lengt	th in feet			
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)	25,300 (64.3)	25,550 (69.6)	20,700 (73.4)	15,750 (76)	13,000 (78.3)		
30	18,950 (13.5)	19,700 (46.9)	20,100 (58.8)	20,300 (65.2)	18,750 (70)	14,300 (73.1)	12,150 (75.8)	10,050 (78)	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)	9050 (73.7)	7450 (75.9)
45			11,200 (40.2)	11,400 (51.1)	11,550 (58.8)	11,100 (64.2)	9750 (68.4)	8550 (71.4)	7200 (74)
50			9400 (31.9)	9650 (46.2)	9800 (55.1)	10,000 (60.9)	9100 (65.7)	8050 (69.1)	6800 (72)
55			7750 (20.7)	8000 (40.4)	8200 (50.9)	8350 (57.5)	8500 (62.9)	7600 (66.7)	6550 (70)
60				6700 (33.7)	6900 (46.4)	7000 (53.8)	7150 (59.9)	7150 (64.3)	6200 (67.9)
65				5600 (25.4)	5800 (41.5)	5900 (50)	6050 (56.7)	6200 (61.6)	5600 (65.6)
70				4650 (12.7)	4850 (36)	5000 (46)	5100 (53.5)	5250 (58.8)	5350 (63.4)
75					4100 (29.7)	4200 (41.7)	4300 (50.1)	4450 (55.9)	4550 (60.9)
80					3400 (21.7)	3500 (37)	3650 (46.5)	3750 (52.9)	3850 (58.3)
85					2750 (7.2)	2950 (31.6)	3050 (42.8)	3100 (49.8)	3200 (55.6)
90						2400 (25.3)	2500 (38.7)	2600 (46.5)	2650 (52.9)
95						1950 (16.6)	2050 (34.1)	2100 (43.1)	2200 (50)
100							1600 (29)	1700 (39.4)	1750 (47)
105							1250 (22.7)	1300 (35.4)	1400 (43.9)
110							900 (13.8)	950 (30.9)	1050 (40.6)
	Minimu	n boom and	gle (°) for inc	licated leng	th (no load)		0	25.6	36.9

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

	Lifting capacities at zero degree boom angle									
Boom		Main boom length in feet								
angle	34	34 47-A 61-B 74-C 88-D 101-E								
0°	17,950 (31.5)	7,950 11,200 6,750 4,400 2,700 1,600								

NOTE: ( ) Reference radii in feet. 80026336

Rated Load Reductions from main boom capacity when lifting over main boom nose with:									
tele. erected (retracted)									
26' erected	26' erected 1050 1000 950 925 900 900 875 875 850								

#### 43,29 m (142 ft)main boom, full span outrigger, with 9,45 m - 16,76 m (31 ft - 55 ft) jib

Radius		#02									
in		Main boom length in feet									
feet	34	47-A	61-B	74-C	88-D	101-E	115-F	128-G	142		
7	89,200 (74.9)										
8	78,800 (73.1)										
10	67,400 (69.4)	39,350 (75.6)									
12	56,300 (65.7)	39,350 (73.1)	39,550 (77.4)								
15	43,950 (59.7)	39,350 (69.2)	39,050 (74.5)	34,800 (77.7)							
20	31,300 (48.9)	32,050 (62.3)	32,650 (69.5)	31,100 (73.7)	22,650 (76.7)	17,050 (78.8)					
25	23,500 (35.6)	24,300 (55)	24,850 (64.3)	25,150 (69.6)	20,300 (73.4)	15,400 (76)	12,700 (78.3)				
30	18,150 (13.5)	19,050 (46.9)	19,650 (58.8)	19,900 (65.2)	18,350 (70)	13,950 (73.1)	11,850 (75.8)	9800 (78)	7800 (79.5)		
35		15,250 (37.5)	15,850 (52.9)	16,100 (60.7)	16,300 (66.4)	12,850 (70.1)	10,850 (73.5)	9300 (75.8)	7400 (77.7)		
40		12,350 (25.2)	12,950 (46.6)	13,250 (56.1)	13,450 (62.7)	11,850 (67.1)	10,100 (71)	8800 (73.7)	7250 (75.9)		
45			10,750 (40.2)	11,000 (51.1)	11,150 (58.8)	10,750 (64.2)	9450 (68.4)	8300 (71.4)	7000 (74)		
50			8950 (31.9)	9250 (46.2)	9400 (55.1)	9650 (60.9)	8800 (65.7)	7800 (69.1)	6600 (72)		
55			7300 (20.7)	7600 (40.4)	7800 (50.9)	8000 (57.5)	8200 (62.9)	7350 (66.7)	6350 (70)		
60				6300 (33.7)	6500 (46.4)	6650 (53.8)	6850 (59.9)	6900 (64.3)	6000 (67.9)		
65				5200 (25.4)	5400 (41.5)	5550 (50)	5750 (56.7)	5950 (61.6)	5,400 (65.6)		
70				4250 (12.7)	4450 (36)	4650 (46)	4800 (53.5)	5000 (58.8)	5150 (63.4)		
75				Ì	3700 (29.7)	3850 (41.7)	4000 (50.1)	4200 (55.9)	4350 (60.9)		
80					3000 (21.7)	3150 (37)	3350 (46.5)	3500 (52.9)	3650 (58.3)		
85					2350 (7.2)	2600 (31.6)	2750 (42.8)	2850 (49.8)	3000 (55.6)		
90					, ,	2050 (25.3)	2200 (38.7)	2350 (46.5)	2450 (52.9)		
95						1600 (16.6)	1850 (34.1)	1850 (43.1)	2000 (50)		
100						()	1300 (29)	1450 (39.4)	1550 (47)		
105							950 (22.7)	1050 (35.4)	1200 (43.9)		
110							600 (13.8)	700 (30.9)	850 (40.6)		
	Minimu	m boom and	gle (°) for inc	dicated leng	th (no load)		0	25.6	36.9		
	Maximu	m boom len	gth (ft) at 0	° boom an	gle (no load)	)		115			

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

	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1									
	Lifting capacities at zero degree boom angle									
Boom		Main boom length in feet								
angle	34	34 47-A 61-B 74-C 88-D 101-E								
0°	17,150 (31.5)									

NOTE: () Reference radii in feet.

80026639

Radius in	31 ft LENGTH
feet	#03
33	3400 (80)
50	3200 (75)
65	2700 (70)
79	2100 (65)
Min. boom angle for indicated length (no load)	50.6°
Max. boom length at 0° boom angle (no load)	88 ft

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

80026645

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

#### Boom extension capacity notes:

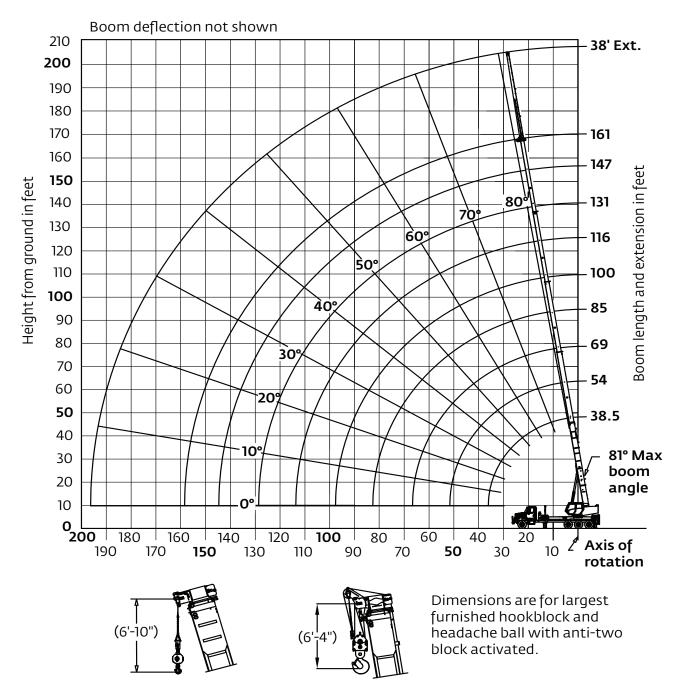
- 1. All capacities above the bold line are based on structural strength of boom extension.
- 2. 31 ft and 55 ft extension lengths may be used for single line lifting service
- Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, 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.
- 5. Capacities listed are with outriggers properly extended and vertical jacks set.
- 6. When lifting over the main boom nose with 31 ft or 55 ft extension erected, the outriggers must be fully extended or 50% (17.5 ft) spread.

## Working range

#### 49,1 m ( 161 ft) main boom, full span outrigger, with 11,6 m (38 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.

Operating radius in feet from axis of rotation

Series NBT45

### 49,1 m (161 ft) main boom, full span outrigger, without jib

Sas.	Radius	#01								
6         90,000 (78.5)         8         77,000 (75.4)         8         77,000 (75.4)         8         77,000 (75.4)         25,650 (77.4)         8         77,000 (75.2)         25,650 (77.4)         8         77,000 (75.2)         25,650 (77.4)         8         77,000 (75.2)         10         8         77,000 (75.2)         10							_			
8         77,000 (75.4) <th< th=""><th>,,,,,</th><th></th><th>54-A</th><th>69-B</th><th>85-C</th><th>100-D</th><th>116-E</th><th>131-F</th><th>147-G</th><th>161</th></th<>	,,,,,		54-A	69-B	85-C	100-D	116-E	131-F	147-G	161
8         (75.4)         C55.500         25,650 (72.2)         C77.4)         C56,700 (69.0)         25,200 (77.2)         23,350 (78.8)         C75.2)         C78.8)         C75.2)         C78.8)         C75.2)         C78.8)         C75.2)         C78.8)         C75.2)         C78.8)         C75.2)         C78.8)         C75.2)         C79.1)         C79.1)         C79.1)         C79.1)         C78.3)         C79.7)	6									
10	8									
15	10									
15	12									
20         (55.1)         (66.0)         (72.0)         (75.8)         (78.3)         7700         4800         4800         4800         4800	15									
25         (45.1)         (59.9)         (67.5)         (72.3)         (75.5)         (77.9)         (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 (10.0)         13,950 (46.1)         12,950 (58.0)         12,900 (64.8)         11,250 (69.5)         8400 (72.9)         6600 (75.5)         5300 (75.5)         5050 (77.5)           40         11,350 (37.8)         10,600 (53.3)         9850 (61.2)         9200 (66.5)         770.4         6150 (70.4)         6150 (73.3)         675.0         5050 (75.5)         6150 (75.6)         5050 (75.6)         4750 (77.1)         4750 (73.3)         4750 (66.5)         4500 (68.8)         4780 (67.8)         4500 (68.8)         4500 (68.1)         4500 (68.1)         4500 (68.2)         4500 (68.2)         4500 (68.2)	20									
30         (32.7)         (53.3)         (62.8)         (68.6)         (72.5)         (75.5)         (77.7)         (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 (75.5)           40         11,350 (37.8)         10,600 (53.3)         9850 (61.2)         9200 (66.5)         7750 (70.4)         6150 (73.3)         5050 (75.6)           45         9400 (28.6)         8850 (47.8)         8250 (77.2)         7700 (63.3)         700 (67.7)         71.1)         773.7)           50         7700 (12.2)         7400 (41.7)         6900 (52.9)         6500 (59.9)         6150 (65.0)         5400 (68.8)         4500 (68.8)         4500 (69.8)           55         6100 (34.7)         4750 (48.4)         4500 (56.5)         4250 (66.1)         4100 (66.5)         4200 (67.8)           60         5000 (34.7)         4750 (43.6)         4250 (49.0)         4100 (56.1)         3950 (35.8)         4500 (49.0)         4250 (56.1)         4100 (61.4)         4500 (56.5)           70         3250 (32.1)         3100 (45.0)         2950 (58.7)         2850 (58.7)         2750 (63.2)           75         2650 (24.6)         2550 (40.6)	25									
11,0   (46.1)   (58.0)   (64.8)   (69.5)   (72.9)   (75.5)   (77.5)   (77.5)   (40.1)   (13.3)   (13	30									
40         (37.8)         (53.3)         (61.2)         (66.5)         (70.4)         (73.3)         (75.6)           45         9400 (28.6)         8850 (47.8)         8250 (57.2)         7700 (63.3)         7050 (67.7)         5800 (71.1)         4750 (73.7)           50         7700 (12.2)         7400 (41.7)         6900 (52.9)         6500 (59.9)         6150 (65.0)         5400 (68.8)         4500 (71.8)           55         6100 (34.7)         7500 (48.4)         5450 (56.5)         5100 (66.1)         4900 (66.5)         4200 (69.8)           60         5000 (26.2)         4750 (43.6)         4500 (52.8)         4100 (52.1)         3950 (32.1)         4100 (49.0)         3950 (56.1)         3350 (59.1)         3300 (67.8)         3300 (67.8)         3300 (67.8)         3300 (57.8)         3300 (57.8)         3250 (32.1)         3100 (45.0)         2950 (58.7)         2850 (58.7)         2750 (63.2)         2350 (60.9)         2300 (60.9)         2000 (49.6)         2000 (56.6)         1950 (58.5)         1900 (58.6)         1950 (58.5)         1950 (56.1)         <	35									4000 (78.9)
45         (28.6)         (47.8)         (57.2)         (63.3)         (67.7)         (71.1)         (73.7)           50         7700 (12.2)         7400 (41.7)         6900 (52.9)         6500 (59.9)         6150 (65.0)         5400 (68.8)         4500 (71.8)           55         6100 (34.7) (48.4)         5750 (56.5)         5450 (56.5)         5100 (62.1)         4900 (66.5)         4200 (69.8)           60         5000 (26.2)         4750 (43.6)         4501 (52.8)         4250 (50.1)         4100 (63.9)         3950 (67.8)           65         4100 (13.0)         3950 (38.2)         3750 (49.0)         3550 (56.1)         3400 (61.4)         3300 (65.5)           70         3250 (32.1)         3100 (45.0)         2950 (52.9)         2850 (58.7)         2750 (63.2)           75         2650 (24.6)         2550 (40.6)         2450 (49.6)         2350 (56.0)         2300 (58.5)           80         2100 (35.8)         2000 (49.6)         1950 (56.0)         1900 (58.5)           85         1700 (30.3)         1650 (42.4)         1650 (50.3)         1550 (56.1)           1300         1300         1250         1250 <td>40</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3900 (77.3)</td>	40									3900 (77.3)
50         (12.2)         (41.7)         (52.9)         (59.9)         (65.0)         (68.8)         (71.8)           55         6100 (34.7)         5750 (48.4)         5450 (56.5)         5100 (62.1)         4900 (66.5)         4200 (69.8)           60         5000 (26.2)         4750 (43.6)         4500 (52.8)         4250 (59.1)         4100 (63.9)         3950 (67.8)           65         4100 (13.0)         3950 (38.2)         3750 (49.0)         3550 (56.1)         3400 (61.4)         3300 (65.5)           70         3250 (32.1)         3100 (45.0)         2950 (52.9)         2850 (58.7)         2750 (63.2)           75         2650 (24.6)         2550 (40.6)         2450 (49.6)         2350 (56.0)         2300 (56.0)           80         2100 (35.8)         2000 (46.1)         1950 (53.6)         1900 (58.5)           85         1700 (30.3)         1650 (42.4)         1600 (50.3)         1550 (56.1)           1300         1300         1250         1250	45									3750 (75.6)
55         (34.7)         (48.4)         (56.5)         (62.1)         (66.5)         (69.8)           60         5000 (26.2)         4750 (43.6)         4500 (52.8)         4250 (59.1)         4100 (39.5)         3950 (67.8)           65         4100 (13.0)         3950 (38.2)         3750 (39.0)         3550 (56.1)         3400 (65.5)         3300 (65.5)           70         3250 (32.1)         3100 (29.5)         2850 (58.7)         2750 (63.2)           75         2650 (25.6)         2550 (49.6)         2450 (56.0)         2350 (60.9)           80         2100 (35.8)         (46.1)         (53.6)         (58.5)           85         1700 (35.8)         1650 (60.0)         1650 (58.5)           1300 1300 1250 1250         1250	50									3550 (73.9)
60     (26.2)     (43.6)     (52.8)     (59.1)     (63.9)     (67.8)       65     4100 (13.0)     3950 (38.2)     3750 (49.0)     3550 (56.1)     3400 (61.4)     3300 (65.5)       70     3250 (32.1)     3100 (45.0)     2950 (52.9)     2850 (58.7)     2750 (63.2)       75     2650 (24.6)     2550 (40.6)     2450 (49.6)     2350 (56.0)     2300 (60.9)       80     2100 (35.8)     2000 (46.1)     1950 (53.6)     1950 (58.5)       85     1700 (30.3)     1650 (42.4)     1600 (50.3)     1550 (56.1)       1300     1300     1250     1250	55									3400 (72.2)
65     (13.0)     (38.2)     (49.0)     (56.1)     (61.4)     (65.5)       70     3250 (32.1)     3100 (45.0)     2950 (52.9)     2850 (58.7)     2750 (63.2)       75     2650 (24.6)     2550 (40.6)     2450 (49.6)     2350 (56.0)     2300 (60.9)       80     2100 (35.8)     2000 (46.1)     1950 (53.6)     1900 (58.5)       85     1700 (30.3)     1650 (42.4)     1600 (50.3)     1550 (56.1)       1300     1300     1250     1250	60									3250 (70.4)
70 (32.1) (45.0) (52.9) (58.7) (63.2)  75 2650 2550 2450 2350 2300 (60.9)  80 2100 2000 1950 1900 (35.8) (46.1) (53.6) (58.5)  85 1700 1650 1600 1550 (30.3) (42.4) (50.3) (56.1)	65									2950 (68.6)
80 (24.6) (40.6) (49.6) (56.0) (60.9)  80 2100 2000 1950 1900 (35.8) (46.1) (53.6) (58.5)  85 1700 1650 1600 1550 (30.3) (42.4) (50.3) (56.1)  1300 1300 1250 1250	70									2700 (66.7)
80 (35.8) (46.1) (53.6) (58.5) 85 (1700 1650 1600 1550 (30.3) (42.4) (50.3) (56.1) 1300 1300 1250 1250	75									2250 (64.6)
85 (30.3) (42.4) (50.3) (56.1) 1300 1300 1250 1250	80									1850 (62.5)
	85									1500 (60.3)
(23.0) (36.4) (47.2) (33.0)	90					1300 (23.6)	1300 (38.4)	1250 (47.2)	1250 (53.6)	1200 (58.2)
95 1000 1000 1000 950 (14.0) (34.0) (44.0) (50.9)	95									950 (55.9)
100 700 750 750 (29.0) (40.6) (48.3)	100									750 (53.6)
105 500 500 500 (23.0) (37) (45.4)	105									500 (51.2)
Minimum boom angle (°) for indicated length (no load) 23 37 45	Mi	inimum boo	om angle (°)	for indicate	d length (no	load)	23	37	45	51

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	38.5	38.5 54-A 69-B 85-C 100-D							
0°	10,000 7000 3800 1900 800 (36) (51) (66.5) (82) (97.5)								
NOTE: () F	IOTE: ( ) Reference radii in feet. 80048595								

	Rated Load	Reduction	from main	boom capa	city when li	ifting over n	nain boom r	nose with:	
38' erected	2200	1950	1850	1750	1700	1650	1650	1600	1600

#### 49,1 m (161 ft) main boom, full span outrigger, with 11,6 m (38 ft) jib

Radius	#02								
in feet				Main b	oom lengt	h in feet			
leer	38.5	54-A	69-B	85-C	100-D	116-E	131-F	147-G	161
6	89,150 (78.5)								
8	76,150 (75.4)								
10	64,650 (72.2)	25,050 (77.4)							
12	55,850 (69.0)	24,600 (75.2)	22,900 (78.8)						
15	43,550 (64.0)	24,150 (71.8)	22,500 (76.3)	20,850 (79.1)					
20	30,850 (55.1)	23,700 (66.0)	22,050 (72.0)	20,450 (75.8)	15,550 (78.3)				
25	23,050 (45.1)	21,450 (59.9)	19,900 (67.5)	18,350 (72.3)	13,950 (75.5)	9700 (77.9)	7450 (79.7)		
30	17,800 (32.7)	16,750 (53.3)	15,650 (62.8)	14,450 (68.6)	12,600 (72.5)	8800 (75.5)	6950 (77.7)	5350 (79.3)	
35	13,900 (11.0)	13,350 (46.1)	12,500 (58.0)	11,600 (64.8)	10,950 (69.5)	8100 (72.9)	6350 (75.5)	5050 (77.5)	3800 (78.9)
40		10,750 (37.8)	10,150 (53.3)	9450 (61.2)	8900 (66.5)	7450 (70.4)	5900 (73.3)	4800 (75.6)	3700 (77.3)
45		8800 (28.6)	8400 (47.8)	7850 (57.2)	7400 (63.3)	6750 (67.7)	5550 (71.1)	4500 (73.7)	3550 (75.6)
50		7100 (12.2)	6950 (41.7)	6500 (52.9)	6200 (59.9)	5850 (65.0)	5150 (68.8)	4250 (71.8)	3350 (73.9)
55			5650 (34.7)	5350 (48.4)	5150 (56.5)	4800 (62.1)	4650 (66.5)	3950 (69.8)	3200 (72.2)
60			4550 (26.2)	4350 (43.6)	4200 (52.8)	3950 (59.1)	3850 (63.9)	3700 (67.8)	3050 (70.4)
65			3650 (13.0)	3550 (38.2)	3450 (49.0)	3250 (56.1)	3150 (61.4)	3050 (65.5)	2750 (68.6)
70				2850 (32.1)	2800 (45.0)	2650 (52.9)	2600 (58.7)	2500 (63.2)	2500 (66.7)
75				2250 (24.6)	2250 (40.6)	2150 (49.6)	2100 (56.0)	2050 (60.9)	2050 (64.6)
80					1800 (35.8)	1700 (46.1)	1700 (53.6)	1650 (58.5)	1650 (62.5)
85					1400 (30.3)	1350 (42.4)	1350 (50.3)	1300 (56.1)	1300 (60.3)
90					1000 (23.6)	1000 (38.4)	1000 (47.2)	1000 (53.6)	1000 (58.2)
95					700 (14.0)	700 (34.0)	750 (44.0)	700 (50.9)	750 (55.9)
100							500 (40.6)	500 (48.3)	550 (53.6)
М	inimum boo	om angle (°)	for indicate	d length (no	load)	23	37	45	51
	Maximum boom length (ft) at 0° boom angle (no load)							100	

NOTE: () Boom angles are in degrees.

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

	Lifting capacities at zero degree boom angle								
Boom		Main boom length in feet							
angle	38.5	54-A	69-B	85-C	100-D				
0°	9150 (36)	6400 (51)	3350 (66.5)	1500 (82)	500 (97.5)				

NOTE: () Reference radii in feet.

80048598

Radius in feet	#03			
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			

80048601

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

#### Boom extension capacity notes:

- All capacities above the bold line are based on structural strength of boom extension.
- 2. 38 ft extension 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.
- 5. Capacities listed are with outriggers properly extended and vertical jacks set.
- When lifting over the main boom nose with 38 ft extension erected, the outriggers must be fully extended or 50% (17.5 ft) spread.

## Accessories

#### Radio Remote Controls – (Ground level or boom tip)

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

#### Heavy-duty Personnel Basket -

544 kg (1200 lb) capacity steel basket with safety loops for two passengers. Gravity leveling 183 cm x 107cm (72 in x 42 in) platform. Fast attachment and secure locking systems.

#### Air Conditioning for Crane Cab -

Provides excellent crane cab cooling to overcome the radiant heat from the sun reflection.

#### Auxiliary Winch 15,000 lb Line Pull -

Second winch redundant to the main, planetary winch with boom tip "rooster sheave" to allow reeving of both winch lines.

Spanish-Language Danger Decals, Control Knobs, and Operators' Manuals • NB4R (R4 functions)

• BSA-1

• BSA-R1 (provides rotation)

• BSAY-1 • BSAY-2

• A/C

• NBT45AW

• SDD

• SOM

## **Notes**

Series NBT45



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#### **Factories**

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