STERLING CRANE

LIFTING CHARTS - Boom Truck

NATIONAL MODEL LTM NBT30H - 30 TON CAPACITY

Specifications

Boom and jib combinations data

Available in two basic models:

NBT30H100 – Equipped with a 8,83 m - 30,48 m (29 ft - 100 ft) four-section boom. his 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.

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NATIONAL MODEL LTM NBT30H - 30 TON CAPACITY

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

	1 part line	2 part line	3 part line	4 part line	5 part line	6 part line	7 part line
							
MAXIMUM BOOM LENGTH AT MAXIMUM ELEVATION WITH RIGGING SHOWN WITH LOAD BLOCK AT GROUND LEVEL	100 ft boom jib	100 ft	75 ft	60 ft	50 ft	43 ft	36 ft
	110 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) 1361 kg (3000 lb) (high speed)	3492 kg (7700 lb)

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)

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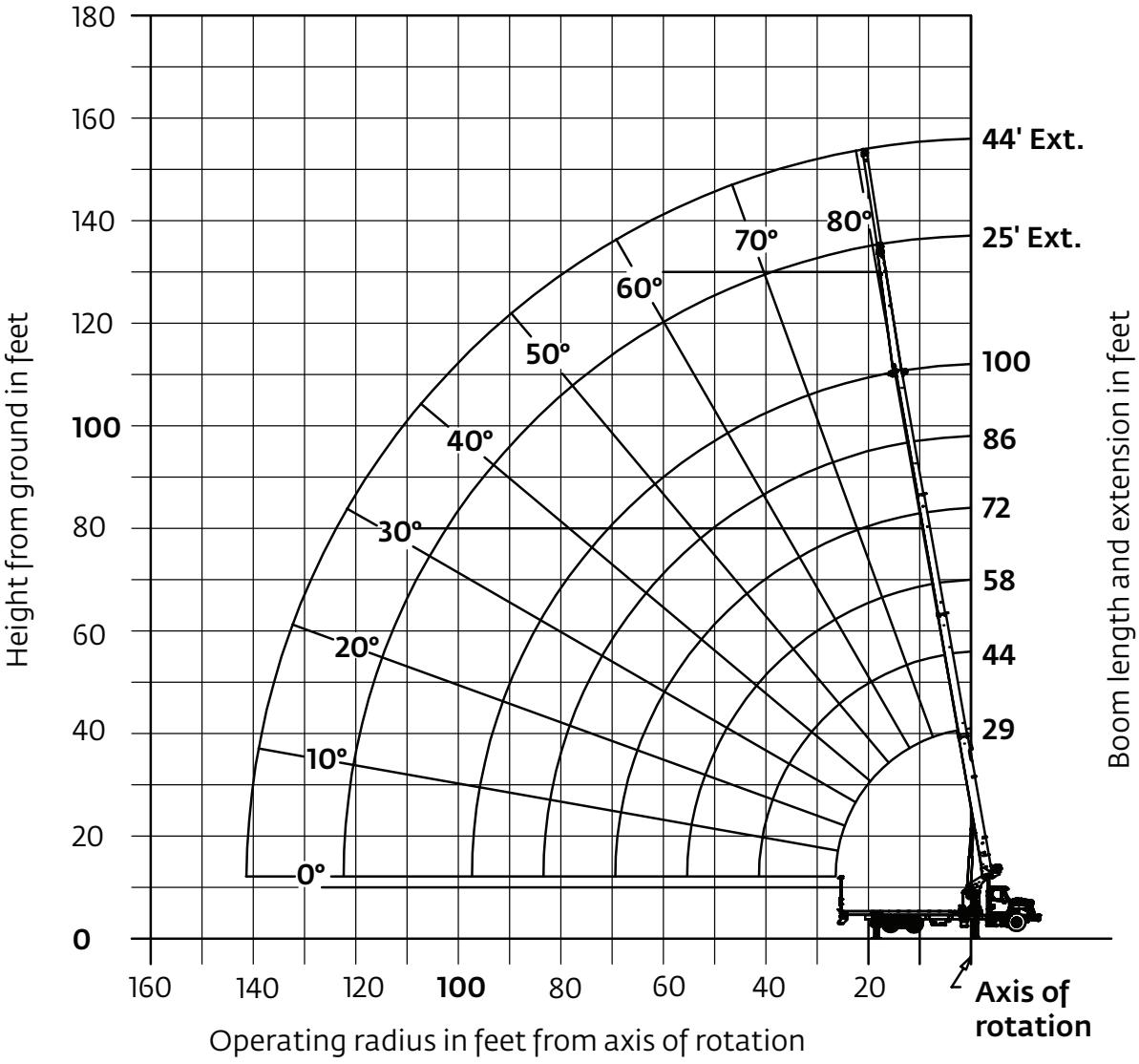
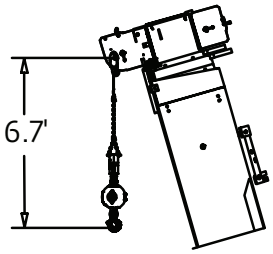
NATIONAL MODEL LTM NBT30H - 30 TON CAPACITY

Working range

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

Boom deflection not shown





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.

STERLING CRANE

LIFTING CHARTS - Boom Truck

NATIONAL MODEL LTM NBT30H - 30 TON CAPACITY

Load chart

100 ft main boom, full span outrigger, without jib

Radius in feet	#01					
	Main boom length in feet					
	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)
Minimum boom angle (°) for indicated length (no load)						0
Maximum boom length (ft) at 0° boom angle (no load)						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 angle	Main boom length in feet					
	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

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LIFTING CHARTS - Boom Truck

NATIONAL MODEL LTM NBT30H - 30 TON CAPACITY

Load chart

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

Radius in feet	#02					
	Main boom length in 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)
Minimum boom angle (°) for indicated length (no load)						0
Maximum boom length (ft) at 0° boom angle (no load)						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 angle	Main boom length in feet					
	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. 80031505

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.
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.

Radius in feet	25 ft LENGTH	44 ft LENGTH
	#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.

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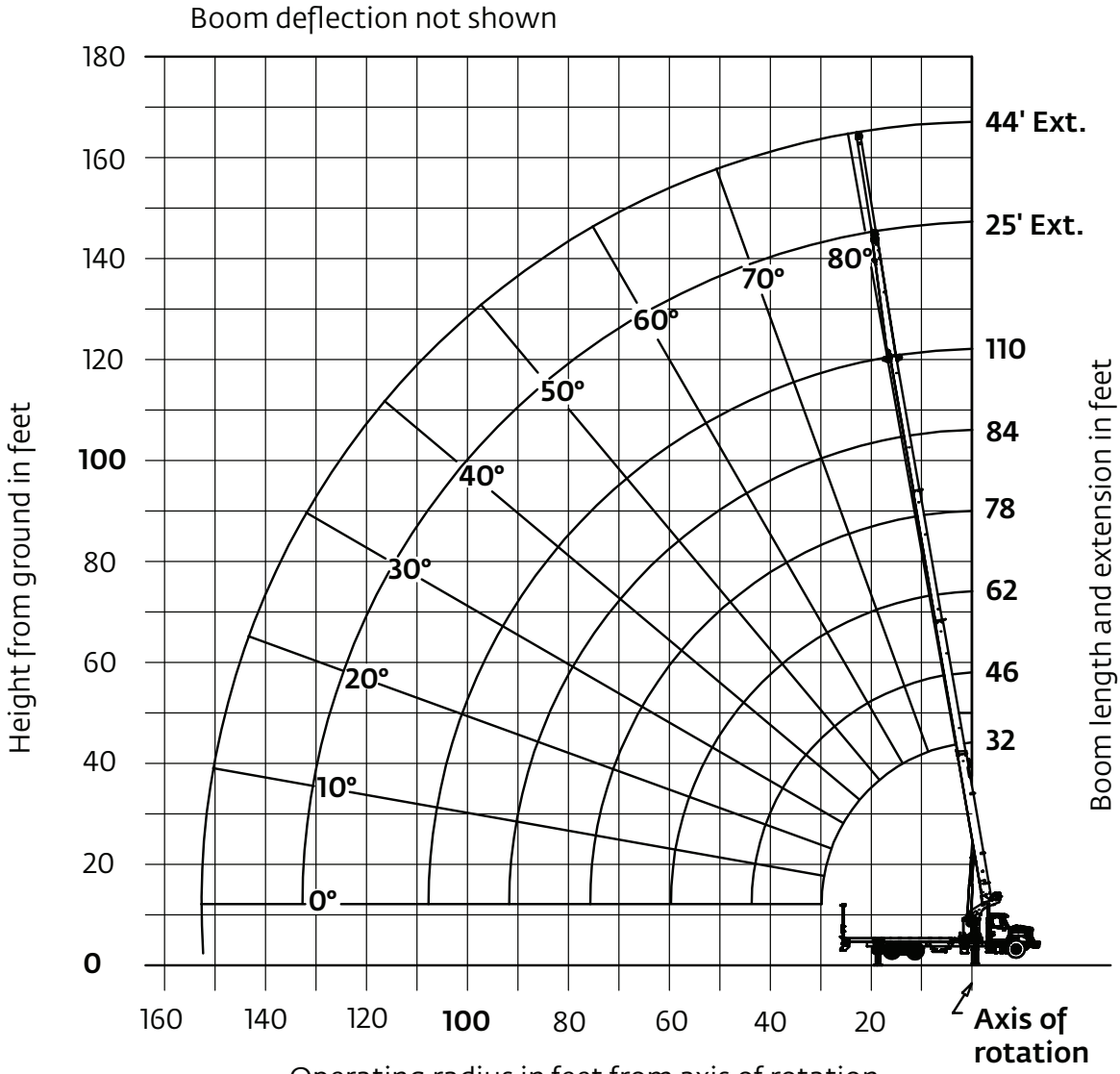
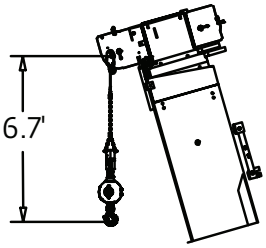
NATIONAL MODEL LTM NBT30H - 30 TON CAPACITY

Working range

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

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LIFTING CHARTS - Boom Truck

NATIONAL MODEL LTM NBT30H - 30 TON CAPACITY

Load chart

110 ft main boom, full span outrigger, without jib

Radius in feet	#001					
	Main boom length in feet					
	32	46-A	62-B	78-C	94-D	110
6	*60,000 (76.7)					
8	43,000 (72.5)	29,100 (78.6)				
10	35,900 (68.5)	29,000 (76.1)				
12	32,000 (64.4)	28,000 (73.6)	28,000 (78)			
15	27,000 (57.9)	24,000 (69.5)	23,000 (76.1)	19,500 (80)		
20	19,500 (45.9)	18,300 (62.5)	17,500 (71.1)	17,500 (76.4)	16,300 (80)	
25	14,900 (30.6)	14,500 (55)	14,050 (65.9)	14,000 (72.4)	13,700 (76.8)	10,450 (79.3)
30		12,000 (46.3)	11,600 (60.8)	11,500 (68.2)	11,350 (73.4)	9150 (76.5)
35		9450 (36.2)	9800 (54.8)	9700 (64)	10,600 (70.1)	8950 (74.1)
40		7250 (23.9)	8100 (48.5)	8300 (59.6)	8450 (66.7)	7700 (71.2)
45			6550 (42)	7000 (55.4)	6900 (63.3)	6950 (68.7)
50			5300 (34)	5550 (50.4)	5650 (59.4)	5900 (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)	3100 (46.8)	3300 (55.4)
70				2350 (23.5)	2550 (42.1)	2700 (51.8)
75					2050 (36.9)	2200 (48.1)
80					1650 (30.9)	1750 (44.2)
85					1250 (23.4)	1400 (39.9)
90					900 (11.9)	1050 (35.2)
95						750 (29.9)
100						500 (23.4)
Minimum boom angle (°) for indicated length (no load)						0
Maximum boom length (ft) at 0° boom angle (no load)						94

NOTE: ( ) 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 angle	Main boom length in feet					
	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):						
(lb)	2100	1900	1800	1750	1700	1650

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Load chart

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

Radius in feet	#02					
	Main boom length in 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)
Minimum boom angle (°) for indicated 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 angle	Main boom length in feet					
	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 in feet	25 ft LENGTH	44 ft LENGTH
	#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

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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.
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 25 ft and 44 ft extension erected, the outriggers must be fully extended or 50% (14 ft) spread.