

NATIONAL CRANE

by **Manitowoc**

LOAD CHARTS NBT45

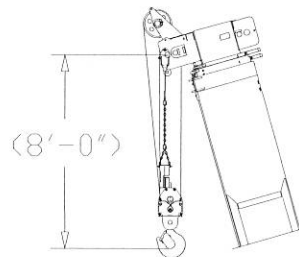
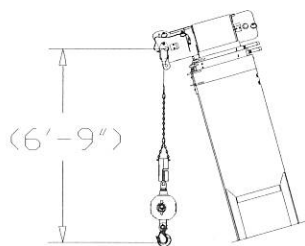
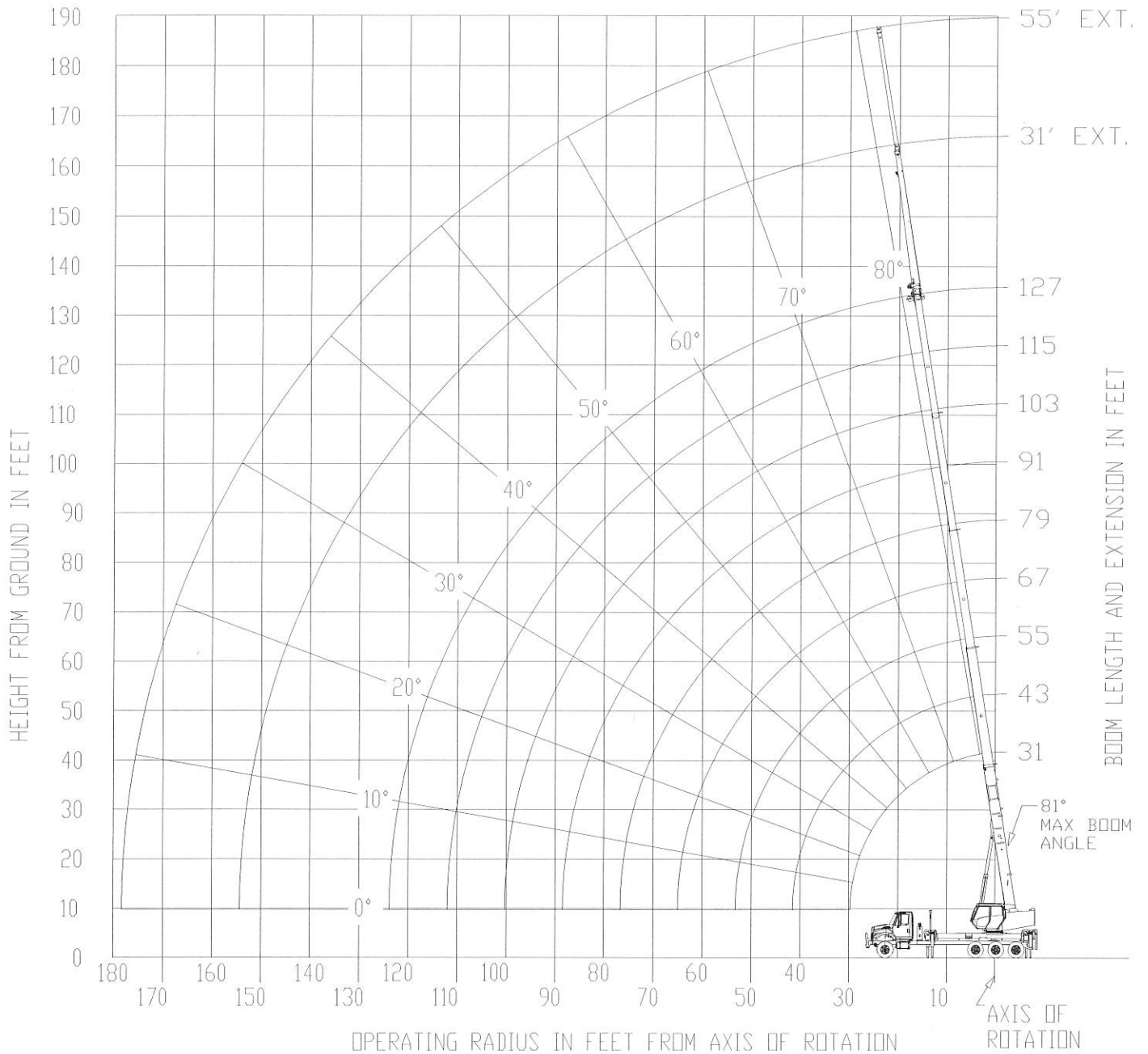
85% STABILITY ON OUTRIGGERS

299138
SERIAL NUMBER

GEOMETRIC RANGE DIAGRAM

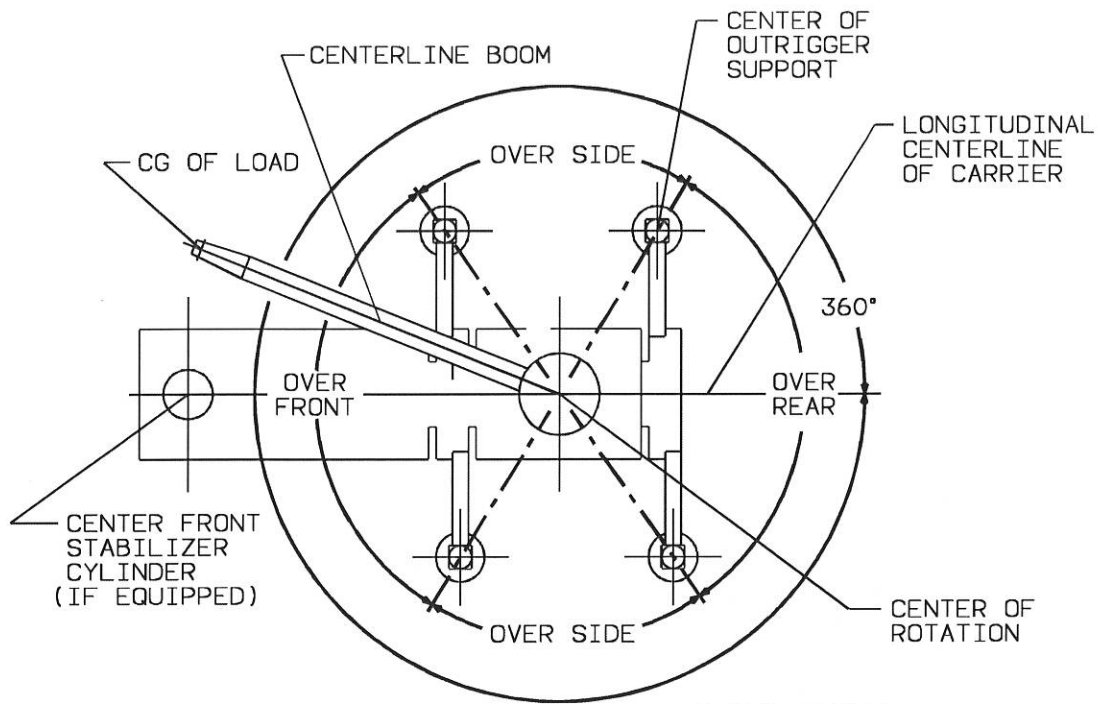
(BOOM DEFLECTION NOT SHOWN)

80025664



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

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



6-829-005671

BOLD LINES DETERMINE THE LIMITING POSITION OF ANY
LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED

WORKING AREA DIAGRAM

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

AUXILIARY BOOM NOSE	71 lb
HOOKBLOCKS and HEADACHE BALLS:	
50 ton, 4 sheave	800 lb+
40 ton, 3 sheave	600 lb+
30 ton, 2 sheave	500 lb+
20 ton, 1 sheave	400 lb+
7 ton overhaul ball	171 lb+

+Refer to rating plate for actual weight.

When lifting over boom extension, deduct total weight of all load handling devices reeved over main boom nose directly from boom extension capacity.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances **MUST BE MADE** for their combined weights. Weights are for National Crane furnished equipment.

LMI operating codes for use with Man Basket:

- #11 - Man Basket on main boom
- #12 - Man Basket on 31 ft. tele extension
- #13 - Man Basket on 55 ft. tele extension

RATED LIFTING CAPACITIES IN POUNDS WITHOUT STOWED EXTENSION 31 FT. - 127 FT. BOOM

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	#01								
	Main Boom Length in Feet								
	31	43-A	55-B	67-C	79-D	91-E	103-F	115-G	127
7	90,000 (73.6)								
8	81,400 (71.6)								
10	69,600 (67.6)	41,000 (74.2)							
12	57,600 (63.4)	41,000 (71.4)	40,500 (75.8)	40,300 (78.8)					
15	45,300 (56.8)	39,000 (67)	40,500 (72.6)	37,300 (76.2)	28,700 (78.6)	21,850 (80.4)			
20	32,700 (44.4)	33,200 (59.4)	33,600 (66.9)	33,400 (71.7)	25,100 (74.9)	19,400 (77.2)	16,300 (79.2)	12,850 (80.7)	
25	24,900 (27.8)	25,450 (51)	25,900 (61)	26,100 (67)	22,200 (71.1)	17,250 (74)	14,950 (76.5)	12,600 (78.4)	10,000 (79.9)
30		20,250 (41.4)	20,700 (54.6)	20,900 (62.1)	20,150 (67.2)	15,650 (70.8)	13,700 (73.7)	11,800 (76)	9,900 (77.9)
35		16,450 (29.4)	16,950 (47.8)	17,100 (57)	17,300 (63.1)	14,450 (67.4)	12,650 (70.8)	10,950 (73.7)	9,500 (75.8)
40			13,450 (40)	13,650 (51.6)	13,850 (58.8)	13,250 (63.9)	11,600 (67.9)	10,300 (71.2)	9,000 (73.6)
45			11,050 (30.6)	11,200 (45.7)	11,350 (54.3)	11,500 (60.3)	10,700 (65.1)	9,600 (68.6)	8,600 (71.4)
50			9,100 (18.5)	9,400 (39.8)	9,550 (50)	9,700 (56.8)	9,850 (62)	9,000 (65.9)	8,100 (69)
55				7,850 (32.2)	8,050 (44.8)	8,150 (52.7)	8,300 (58.6)	8,350 (63.1)	7,650 (66.7)
60				6,600 (22.3)	6,800 (39.2)	6,900 (48.4)	7,050 (55.1)	7,150 (60.1)	7,200 (64.2)
65					5,750 (32.7)	5,900 (43.9)	6,000 (51.4)	6,100 (57)	6,200 (61.5)
70					4,900 (24.7)	5,000 (38.9)	5,150 (47.5)	5,200 (53.7)	5,300 (58.6)
75					4,150 (12.4)	4,300 (33.2)	4,400 (43.3)	4,450 (50.3)	4,550 (55.7)
80						3,650 (26.5)	3,750 (38.8)	3,800 (46.8)	3,900 (52.7)
85						3,050 (17.4)	3,200 (33.8)	3,250 (43)	3,350 (49.5)
90							2,700 (28)	2,750 (38.9)	2,850 (46.2)
95							2,250 (20.6)	2,300 (34.3)	2,400 (42.7)
100							1,850 (7.1)	1,950 (29.2)	2,000 (38.9)
105								1,550 (22.9)	1,650 (34.8)
110								1,250 (13.9)	1,300 (30.1)
115									1,000 (24.7)
Minimum boom angle (°) for indicated length (no load)									0
Maximum boom length (ft.) at 0° boom angle (no load)									127

NOTE: () Boom angles are in degrees.

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

Lifting Capacities at Zero Degree Boom Angle									
Boom Angle	Main Boom Length in Feet								
	31	43-A	55-B	67-C	79-D	91-E	103-F	115-G	
0°	21,200 (28.5)	12,900 (40.5)	8,200 (52.5)	5,600 (64.5)	3,900 (76.5)	2,700 (88.5)	1,800 (100.5)	1,100 (112.5)	

NOTE: () Reference radii in feet.

80025872

Rated Load Reductions from main boom capacity when lifting over main boom nose with ext. erected (retracted):									
(in lb)	2,300	2,150	2,000	1,950	1,900	1,850	1,800	1,750	1,700

RATED LIFTING CAPACITIES IN POUNDS WITH STOWED EXTENSION 31 FT. - 127 FT. BOOM

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	#02								
	Main Boom Length in Feet								
	31	43-A	55-B	67-C	79-D	91-E	103-F	115-G	127
7	89,200 (73.6)								
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)	9,800 (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)	9,700 (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)	9,300 (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)	8,800 (73.6)
45			10,600 (30.6)	10,800 (45.7)	11,000 (54.3)	11,200 (60.3)	10,450 (65.1)	9,350 (68.6)	8,400 (71.4)
50			8,650 (18.5)	9,000 (39.8)	9,200 (50)	9,400 (56.8)	9,600 (62)	8,750 (65.9)	7,900 (69)
55				7,450 (32.2)	7,700 (44.8)	7,850 (52.7)	8,050 (58.6)	8,100 (63.1)	7,450 (66.7)
60				6,200 (22.3)	6,450 (39.2)	6,600 (48.4)	6,800 (55.1)	6,900 (60.1)	7,000 (64.2)
65					5,400 (32.7)	5,600 (43.9)	5,750 (51.4)	5,850 (57)	6,000 (61.5)
70					4,550 (24.7)	4,700 (38.9)	4,900 (47.5)	4,950 (53.7)	5,100 (58.6)
75					3,800 (12.4)	4,000 (33.2)	4,150 (43.3)	4,200 (50.3)	4,350 (55.7)
80						3,350 (26.5)	3,500 (38.8)	3,550 (46.8)	3,700 (52.7)
85						2,750 (17.4)	2,950 (33.8)	3,000 (43)	3,150 (49.5)
90							2,450 (28)	2,500 (38.9)	2,650 (46.2)
95							2,000 (20.6)	2,050 (34.3)	2,200 (42.7)
100							1,600 (7.1)	1,700 (29.2)	1,800 (38.9)
105								1,300 (22.9)	1,450 (34.8)
110								1,000 (13.9)	1,100 (30.1)
115									800 (24.7)
Minimum boom angle (°) for indicated length (no load)									0
Maximum boom length (ft.) at 0° boom angle (no load)									127

NOTE: () Boom angles are in degrees.

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

Lifting Capacities at Zero Degree Boom Angle									
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0°	20,400 (28.5)	12,250 (40.5)	7,750 (52.5)	5,200 (64.5)	3,550 (76.5)	2,400 (88.5)	1,550 (100.5)	850 (112.5)	

NOTE: () Reference radii in feet.

80026003