IRON STAG CRANE SERVICE

NATIONAL CRANE® by Manitowoc

NTC55
Product Guide

ASME B30.5 • Imperial 85%

Features

- 49,9 t (55 USt) capacity at 2,44 m (8 ft)
- 39,01 m (128 ft) five-section, full-power boom
- Four-position outrigger settings
- Hydraulically removable counterweight system with multiple configurations
- Hydraulically tilting operator cab


9,7 m – 39,0 m
(31.7 ft – 128 ft)


Stowed


2494 kg
(5500 lb)


100%


360°


Pounds

Radius in feet	#0002									
	Main Boom Length in Feet									
	31.7	43-A	54-B	64-C	75-D	86-E	97-F	107-G	118-H	128
8	108,500 (68.1)	—	—	—	—	—	—	—	—	—
10	91,150 (64)	38,400 (71.6)	39,100 (75.6)	—	—	—	—	—	—	—
12	80,050 (59.8)	38,400 (68.7)	39,100 (73.4)	39,800 (76.4)	33,650 (78.7)	—	—	—	—	—
15	64,050 (53.1)	38,400 (64.4)	39,100 (70.1)	39,800 (73.5)	33,650 (76.4)	22,250 (78.3)	—	—	—	—
20	46,500 (40.3)	38,400 (56.7)	39,100 (64.4)	39,800 (68.8)	33,650 (72.5)	22,250 (75)	17,450 (77.1)	14,400 (78.6)	—	—
25	30,500 (21.8)	36,800 (47.5)	37,400 (58)	36,650 (63.9)	29,650 (68.4)	22,250 (71.5)	17,450 (74.2)	14,400 (76.1)	12,600 (77.8)	9350 (78.9)
30	—	29,250 (37.3)	29,850 (51.3)	30,200 (58.6)	26,650 (64.2)	20,000 (68)	17,450 (71.2)	14,400 (73.5)	12,600 (75.6)	9350 (76.9)
35	—	21,500 (23.6)	24,350 (43.9)	24,650 (53.1)	24,150 (59.8)	18,100 (64.3)	15,950 (68)	14,400 (70.8)	12,600 (73.2)	9350 (74.8)
40	—	—	19,850 (35.2)	20,200 (47)	20,400 (55.1)	16,650 (60.5)	14,750 (64.7)	13,350 (68)	11,750 (70.8)	9350 (72.7)
45	—	—	*15,800 (24)	16,200 (40.3)	16,400 (50)	15,400 (56.5)	13,650 (61.5)	12,250 (65)	11,000 (68.2)	9350 (70.6)
50	—	—	—	13,200 (32.4)	13,450 (44.6)	13,600 (52.3)	12,500 (58)	11,450 (62)	10,350 (65.8)	9350 (68.4)
55	—	—	—	10,950 (22.2)	11,150 (38.6)	11,300 (47.8)	11,400 (54.4)	10,650 (59.2)	9700 (63.2)	8500 (65.9)
60	—	—	—	—	9410 (32.4)	9580 (43.3)	9700 (50.8)	9800 (56)	9100 (60.4)	7600 (63.3)
65	—	—	—	—	7930 (23.9)	8110 (37.9)	8240 (46.6)	8340 (52.4)	8380 (57.5)	6750 (60.6)
70	—	—	—	—	*4200 (9.2)	6890 (31.8)	7020 (42.1)	7120 (48.7)	7160 (54.3)	6050 (57.9)
75	—	—	—	—	—	5860 (24.3)	6000 (37.2)	6100 (44.7)	6140 (51)	5450 (55)
80	—	—	—	—	—	*4000 (12.8)	5120 (31.6)	5220 (40.5)	5260 (47.5)	4900 (52.1)
85	—	—	—	—	—	—	4360 (24.8)	4470 (35.8)	4510 (43.8)	4400 (49)
90	—	—	—	—	—	—	*3500 (15.3)	3810 (30.4)	3850 (39.8)	3900 (45.7)
95	—	—	—	—	—	—	—	3230 (24)	3270 (35.4)	3350 (42.2)
100	—	—	—	—	—	—	—	*2500 (14.9)	2760 (30.5)	2840 (38.4)
105	—	—	—	—	—	—	—	—	2300 (24.6)	2380 (34.2)
110	—	—	—	—	—	—	—	—	1880 (16.8)	1970 (29.5)
115	—	—	—	—	—	—	—	—	—	1600 (23.7)
120	—	—	—	—	—	—	—	—	—	*850 (15.8)
Minimum boom angle (°) for indicated length (no load)							0	5	8	10
Maximum boom length (ft) at 0° (no load)							97			

NOTE: ( ) Boom angles are in degrees.
*Loads are structurally limited.
#RCL operating code. Refer to RCL manual for operating instructions.

Lifting Capacities at Zero Degree Boom Angle										
Boom Angle	Main Boom Length in Feet									
	31.7	43-A	54-B	64-C	75-D	86-E				
0°	11,750 (27.6)	6800 (38.8)	4250 (49.8)	3200 (59.8)	1750 (70.8)	750 (81.8)	—	—	—	—

NOTE: ( ) Reference radii in feet.

80095949

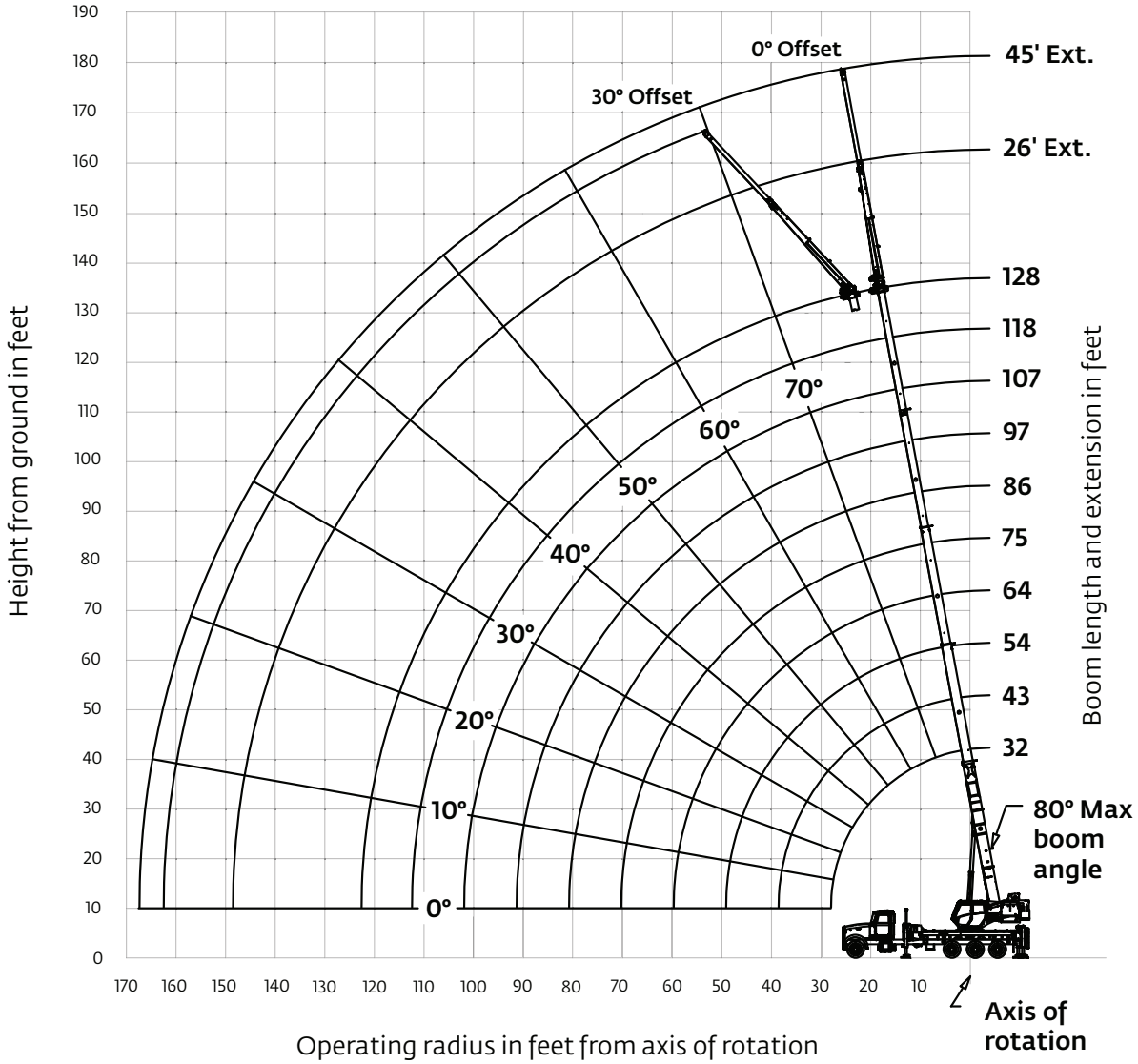
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

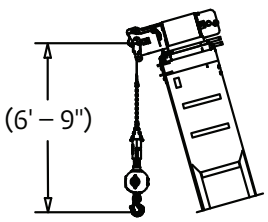
Working range

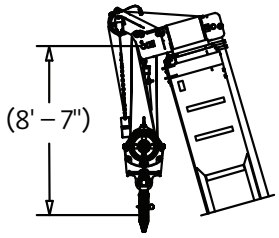
39,01 m
(128 ft)

7,9 m – 13,7 m
(26ft – 45 ft)

Boom deflection not shown







Dimensions are for largest furnished hookblock and headache ball with anti-two-block activated.

*This drawing shows the physical reach of the machine. Always refer to load chart to see which portions of this diagram are valid for the specific machine configuration and where the loads are structurally or stability limited.

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Load charts


7,9 m – 13,7 m
(26 ft – 45 ft)


2494 kg
(5500 lb)


100%


360°



Pounds

Radius in feet	**26 ft Length		45 ft Length	
	#0005	#0007	#0009	#0011
	0° OFFSET	30° OFFSET	0° OFFSET	30° OFFSET
35	5200 (76.9)	—	—	—
40	5200 (75.3)	—	3700 (77.3)	—
45	5200 (73.6)	—	3700 (75.8)	—
50	5200 (71.9)	4800 (77.4)	3700 (74.4)	—
55	5200 (70.1)	4800 (75.6)	3700 (72.9)	—
60	5200 (68.4)	4800 (73.7)	3700 (71.4)	—
65	5200 (66.7)	4800 (71.7)	3700 (69.9)	2500 (77)
70	4850 (64.7)	4650 (69.7)	3700 (68.4)	2500 (75.2)
75	4500 (62.6)	4400 (67.5)	3700 (66.9)	2500 (73.5)
80	4250 (60.5)	4150 (65.2)	3700 (65.4)	2500 (71.7)
85	3950 (58.3)	4000 (62.9)	3700 (63.8)	2500 (69.8)
90	3790 (56.1)	3800 (60.5)	3550 (61.9)	2500 (67.9)
95	3200 (53.8)	3650 (58.1)	3250 (59.9)	2500 (65.9)
100	2690 (51.2)	3130 (55.4)	3000 (57.8)	2500 (63.9)
105	2230 (48.4)	2620 (52.5)	2700 (55.6)	2450 (61.7)
110	1810 (45.5)	2160 (49.5)	2470 (53.5)	2400 (59.5)
115	1440 (42.5)	1740 (46.3)	2090 (51.2)	2350 (57.1)
120	1100 (39.3)	1360 (42.7)	1750 (48.7)	2300 (54.7)
125	800 (35.8)	1010 (38.9)	1440 (46)	1940 (52.1)
130	520 (32.1)	680 (34.8)	1150 (43.3)	1590 (49.1)
135	—	—	890 (40.4)	1280 (45.9)
140	—	—	650 (37.2)	980 (42.3)
145	—	—	—	700 (38.2)
Min. boom angle for indicated length (no load)	31°	33°	36°	36°
Max. boom length at 0° boom angle (no load)	64 ft		64 ft	

NOTE: ( ) Boom angles are in degrees. 80095954

#RCL operating code. Refer to RCL manual for instructions.
*Loads are structurally limited.
**26 ft. capacities are applicable to both 26' fixed and 26' tele extension.

Boom extension capacity notes:

1. 26 ft and 45 ft extension lengths may be used for single line lifting service.
2. 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. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom 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.
3. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
4. Capacities listed are with outriggers properly extended and vertical jacks set only.

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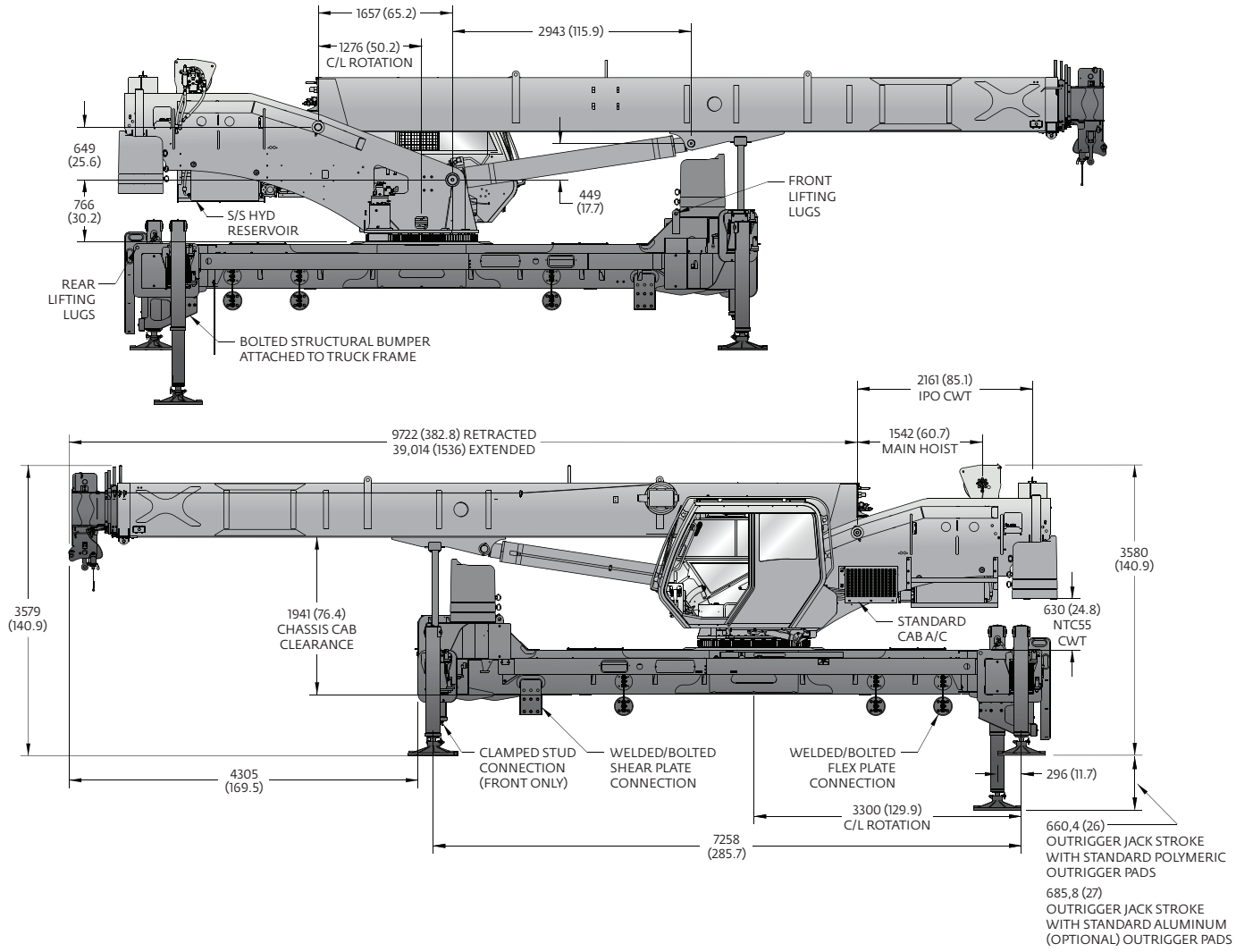
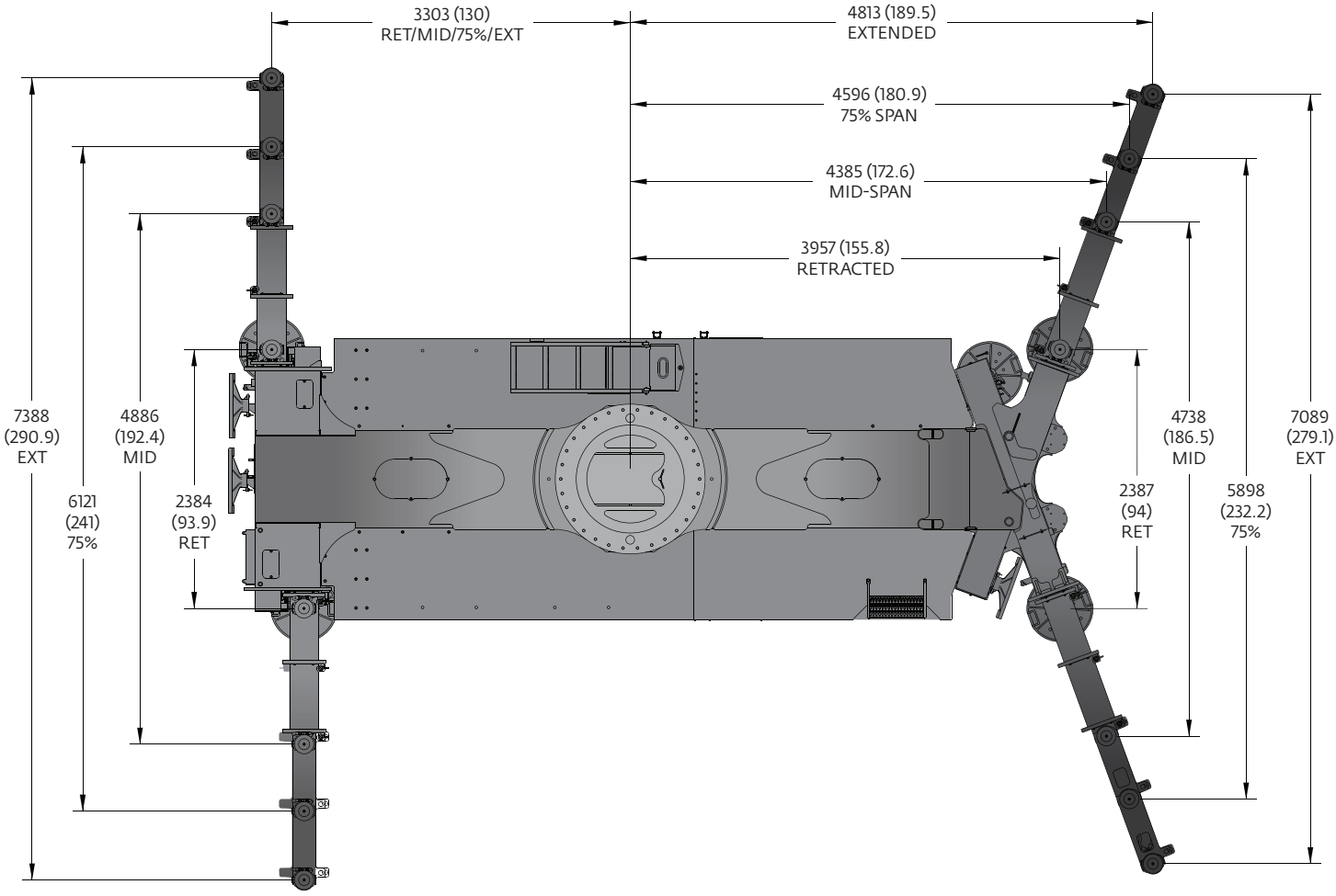
IRON STAG CRANE SERVICE

Dimensions



Dimensions are in mm (in) unless otherwise specified

Dimensions



Dimensions are in mm (in) unless otherwise specified

Weight and CG Estimates				
Configuration	Horizontal CG mm (in)	Weight w/ Fluids kg (lbs)	CWT Pinned (# slabs)	CWT Stowed (# slabs)
NTC55128	616 (24.3)	22 067 (48,650)	3	0

Specifications

IRON STAG CRANE SERVICE

Main and (optional) auxiliary hoist(s)

Two-speed displacement, bent-axis piston motor driving a planetary gearset and a grooved drum with cable tensioner/follower, drum rotation indicator and last layer and minimum wrap indicators.

Parts of Line	1 part line	2 part line	3 part line	4 part line	5 part line	6 part line	7 part line	8 part line	9 part line	10 part line
Max boom length (ft) at max elevations with stated rigging and load block and ground level	173 (includes 45 ft ext.)	128	102	81	66	55	47	40	35	31.7
Low speed lift (lb)	11,280	22,500	33,750	45,000	56,250	67,500	78,750	90,000	100,000	110,000
High speed lift (lb)	5000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000

Line Pulls and Reeving Information			
Hoists	**Cable specs.**	**Permissible line pulls**	**Nominal cable length**
Main	16 mm (5/8 in) Dyform 34 LR Rotation Resistant (non-rotating) Min. Breaking Strength 56,420 lb	11,280 lb*	450 ft
Main and Auxiliary	16 mm (5/8 in) 6x19 Class EEIPS, IWRC Min. Breaking Strength 45,400 lb	11,280 lb*	450 ft
Main and Auxiliary	18 mm Synthetic K-100™ Hoist Rope (ISO) Min. Breaking Strength 63,700 lb	12,740 lb*	463 ft

The approximate weight of 5/8 in wire rope is 1.0 lb/ft.
The approximate weight of 18 mm synthetic rope is 0.16 lb/ft.
*With certain boom and hoist tackle combinations, the allowable line pull may be limited by hoist performance. Refer to Hoist Performance table for lift planning to ensure adequate hoist performance on drum rope layer required.

Hoist Performance				
Wire rope layer	**Hoist line pulls**		**Drum capacity (ft)**	
	Two speed hoist			
	Low	**High**	**Layer**	**Total**
	Available lb	**Available lb**		
1	15,000	7516	82	82
2	13,529	6765	92	174
3	12,299	6150	101	275
4	11,275	5637	110	385
5	10,407	5204	119	504

**Refer to Line Pulls and Reeving Information table for max. lifting capacity of wire rope.*

Synthetic rope layer height may vary and may reduce available line pull per layer.

Weight Reductions for Load Handling Devices	
Auxiliary boom nose	32.2 kg (71 lb)
Hook blocks and headache balls	
55 USt, 5-sheave (14 in sheave) CE	498.0 kg (1098 lb)+
40 USt, 3-sheave (12 in sheave)	272.2 kg (600 lb)+
20 USt, 1-sheave	181.4 kg (400 lb)+
7 USt overhaul ball	163.7 kg (250 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 Manitowoc furnished equipment.