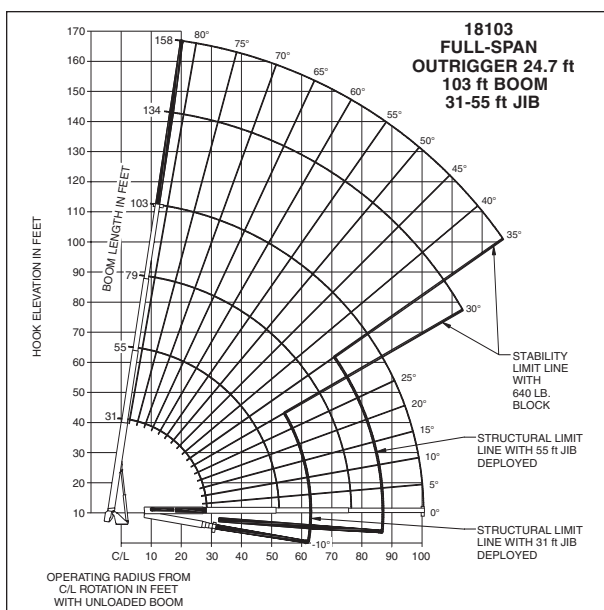


capacities

Load Rating Chart: Series 18103 (31.39 m) Boom with 31-55 ft (9.45-16.76 m) Jib/Full-Span Outrigger 24.7 ft (7.6 m)

National Crane will send you a chart on request – or you may secure needed load rating information through your nearest National Crane dealer.



CAUTION:

- **Do not operate crane booms, jib extensions, any accessories or loads within 10 ft (3m) of live power lines or other conductors of electricity.**
- Jib and boom capacities shown are maximum for each section.
- Do not exceed capacities at reduced radii.
- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
- The operator must reduce load to allow for factors such as wind, ground conditions, operating speeds and their effects on freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights on any accessories attached to the boom or loadline must be deducted from the load chart capacities.
- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

Load Rating Chart: Series 18103 (31.39 m) Boom with 31-55 ft (9.45-16.76 m) Jib/Full-Span Outrigger 24.7 ft (7.6 m)

**SERIES 18103
WITH 31-55 ft JIB/
FULL-SPAN
OUTRIGGER 24.7 ft**

NOTE:

1. Operate with jib by radius when main boom is fully extended. If necessary increase boom angle to maintain loaded radius.
2. Operate with jib by boom angle when main boom is not fully extended. Do not exceed rated jib capacities at any reduced boom lengths.
3. Capacities do not exceed 85% stability.
4. Shaded areas are structurally limited capacities.

NOTE:

1. All capacities are in pounds, angles in degrees, radius in feet.
2. Loaded boom angles are given as reference only.
3. Shaded areas are structurally limited capacities.

LOADLINE DEDUCT

	Aux Boom Head	100 lb	(45 kg)
5 UST	Downhaul Weight	180 lb	(82 kg)
15 UST	1 Sheave Block	375 lb	(170 kg)
25 UST	2 Sheave Block	640 lb	(290 kg)
35 UST	3 Sheave Block	870 lb	(395 kg)
40 UST	4 Sheave Block	970 lb	(440 kg)

31 TO 103 ft BOOM RATED LOADS WITHOUT JIB

55 FT BOOM RATED LOADS (W/OUT WIND)									55 FT JIB RATED LOADS		
LOAD RADIUS (ft)	LOADED BOOM ANGLE	31 FT BOOM (lb)	LOADED BOOM ANGLE	55 FT BOOM (lb)	LOADED BOOM ANGLE	79 FT BOOM (lb)	LOADED BOOM ANGLE	103 FT BOOM (lb)	RADIUS FULLY EXTENDED	LOADED BOOM ANGLE	RATED LOAD ALL BOOM LENGTHS
7	73.9	80,000							25	80	8,800
8	71.9	74,000							38	75	8,000
10	67.7	65,000	78.9	50,000					49	70	6,500
12	63.5	57,000	76.6	45,000					60	65	5,100
15	56.7	44,000	73.3	38,000	79.6	30,000			70	60	4,100
20	44.1	30,800	67.7	31,500	75.9	26,000	79.5	17,000	79	55	3,300
25	27.4	23,200	61.7	23,800	72.1	22,000	76.7	15,200	88	50	2,600
30			55.3	18,800	68.1	18,500	73.8	13,500	96	45	1,900
35			48.3	15,200	64	15,500	70.9	12,000	103	40	1,350
40			40.5	12,500	59.6	12,800	67.8	10,500	110	35	950
45			31.2	10,500	55.1	10,700	65	9,300	115	30	650
50			19.3	9,000	50.7	9,000	61.8	8,300	55 ft JIB RATED LOADS		
55					45.5	7,600	58.5	7,400	RADIUS FULLY EXTENDED	LOADED BOOM ANGLE	RATED LOAD ALL BOOM LENGTHS
60					39.9	6,600	55.1	6,500	29	80	4,000
65					33.4	5,600	51.4	5,600	45	75	3,700
70					25.5	4,800	47.5	4,800	59	70	3,300
75					13.4	4,050	43.4	4,100	73	65	3,000
80							38.9	3,500	85	60	2,600
85							33.8	2,950	96	55	2,100
90							28	2,450	106	50	1,700
95							20.7	2,050	115	45	1,300
100							7.9	1,650	123	40	950
									130	35	650
	0	19,700	0	8,200	0	3,800	0	1,600			



31 ft JIB RATED LOADS

RADIUS FULLY EXTENDED	LOADED BOOM ANGLE	RATED LOAD ALL BOOM LENGTHS
25	80	8,800
38	75	8,000
49	70	6,500
60	65	5,100
70	60	4,100
79	55	3,300
88	50	2,600
96	45	1,900
103	40	1,350
110	35	950
115	30	650

55 ft JIB RATED LOADS

RADIUS FULLY EXTENDED	LOADED BOOM ANGLE	RATED LOAD ALL BOOM LENGTHS
29	80	4,000
45	75	3,700
59	70	3,300
73	65	3,000
85	60	2,600
96	55	2,100
106	50	1,700
115	45	1,300
123	40	950
130	35	650

RATED LOAD REDUCTIONS WITH JIB

LIMITED LOAD REQUIREMENTS WITH LIFT			
BOOM LENGTH	31-55 ft JIB STOWED		31-55 ft JIB ERECTED AT 31 ft LENGTH
			
31 ft	Reduce load 800 lb		Reduce load 2,300 lb
55 ft	Reduce load 450 lb		Reduce load 2,000 lb
79 ft	Reduce load 350 lb		Reduce load 1,900 lb
103 ft	Reduce load 250 lb		Reduce load 1,800 lb

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.