



1800 winch data

- All winch pulls and speeds are shown on the fifth layer.
- Winch line pulls would increase on the first, second, third and fourth layers.
- Winch line speed would decrease on the first, second, third and fourth 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

5/8" diameter

rotation resistant

IWRC

Average

breaking

strength

25 583 kg

(56,400 lb)

25 583 kg

(56,400 lb)

Standard

planetary

winch

Low speed

High speed

1 part line	2 part line	3 part line	4 part line	5 part line	6 part line	7 part line	8 part line
Lift							
and							
speed							
4536 kg	9072 kg	13 608 kg	18 144 kg	22 680 kg	27 216 kg	31 751 kg	36 287 kg
(10,000 lb)	(20,000 lb)	(30,000 lb)	(40,000 lb)	(50,000 lb)	(60,000 lb)	(70,000 lb)	(80,000 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)
125 m/min	62 m/min	42 m/min	31 m/min	25 m/min	21 m/min	18 m/min	16 m/min
(410 fpm)	(205 fpm)	(137 fpm)	(103 fpm)	(82 fpm)	(68 fpm)	(59 fpm)	(51 fpm)

Winch	Full drum pull	Allowable cable pull
Standard planetary and auxiliary planetary	2268 kg (5000 lb) high speed 4536 kg (10,000 lb) low speed	5117 kg (11,280 lb) 5117 kg (11,280 lb)

Loadline deduct							
Aux boom head 45 kg (100							
5 USt	Downhaul weight	82 kg (180 lb)					
15 USt	1-sheave block	170 kg (375 lb)					
25 USt	2-sheave block	290 kg (640 lb)					
35 USt	3-sheave block	395 kg (870 lb)					
40 USt	4-sheave block	440 kg (970 lb)					

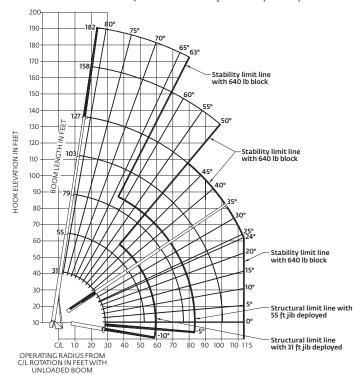
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Capacities



Series 18127: 38,71 boom with 9,45 m - 16,76 m (31 ft - 55 ft) jib/full span outrigger 7,6 m (24.7 ft)

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 3 m (10 ft) 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 chart

31 ft - 127 ft BOOM RATED LOADS WITHOUT JIB

LOAD RADIUS (ft)	LOADED BOOM ANGLE	31 ft BOOM (lb)	LOADED BOOM ANGLE	55 ft BOOM (lb)	LOADED BOOM ANGLE	79 ft BOOM (Ib)	LOADED BOOM ANGLE	103 ft BOOM (lb)	LOADED BOOM ANGLE	127 ft BOOM (Ib)
7	74.5	80,000								
8	72.4	74,000								
10	68.2	64,000								
12	63.8	56,000	76.9	40,000						
15	56.9	43,000	73.8	38,000	79.8	29,000				
20	44.2	30,000	68.1	31,000	76.2	25,000	80	16,000		
25	27.4	22,500	62	23,400	72.5	21,500	77.2	14,500	80	10,000
30			55.5	18,300	68.5	18,700	74.4	13,000	78	9500
35			48.6	14,800	64.3	15,100	71.5	11,500	75.9	9000
40			40.7	12,100	59.9	12,500	68.6	10,500	73.6	8100
45			31.3	10,100	55.3	10,400	65.9	9500	71.2	7200
50			19.4	8500	50.9	8800	62.7	8500	68.8	6500
55					45.8	7500	59.3	7500	66.3	5800
60					40.1	6400	55.7	6500	63.7	5300
65					33.6	5400	52	5600	61.1	4800
70					25.6	4600	48.1	4700	58.4	4300
75					13.5	3850	43.9	3950	55.6	3900
80							39.3	3350	52.6	3400
85							34.3	2800	49.4	2850
90							28.4	2300	46	2350
95							21	1850	42.5	1900
100							8.2	1500	38.8	1550
105									34.6	1200
110									30	900
115									24.6	650
	0	19,000	0	7700	0	3600	0	1450		

31	31 ft JIB RATED LOADS								
RADIUS FULLY EXTENDED	LOADED BOOM ANGLE	RATED LOADS ALL BOOM LENGTHS							
30	80	3400							
46	75	3200							
60	70	2700							
73	65	2100							
85	60	1700							
96	55	1200							
106	50	650							
55	ft JIB RATE	D LOADS							
RADIUS FULLY EXTENDED	LOADED BOOM ANGLE	RATED LOADS ALL BOOM LENGTHS							
36	80	2200							
54	75	2200							
70	70	1600							

1	RATED LOAD REDUCTIONS WITH JIB								
BOOM LENGTH	31 ft JIB STOWED	31 ft - 55 ft JIB ERECTED AT 31 ft LENGTH							
31 ft	Reduce load 800 lb	Reduce load 2300 lb							
55 ft	Reduce load 450 lb	Reduce load 2000 lb							
79 ft	Reduce load 350 lb	Reduce load 1900 lb							
103 ft	Reduce load 250 lb	Reduce load 1800 lb							
127 ft	Reduce load 200 lb	Reduce load 1700 lb							

NOTE:

- Operate with jib by radius when main boom is fully extended. If necessary increase boom angle to maintain loaded radius.
- 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:

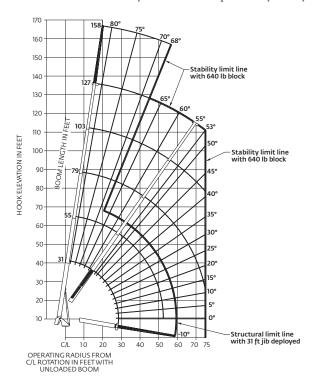
- 1. All capacities are in pounds, angles in degrees, radius in feet.
- 2. Loaded boom angles are given as reference only.
- 3. Shaded areas are structurally limited capacities.

STERLING



Series 18127: 38,71 m boom with 9,45 m (31 ft) jib/mid span outrigger 5,4 m (17.5 ft)

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CAUTION:

- Do not operate crane booms, jib extensions, any accessories or loads within 3 m (10 ft) 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.

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12	63.9	56,000	76.9	40,000						
15	57	43,000	73.8	38,000	79.8	29,000				
20	44.2	27,700	67.8	27,000	76.2	25,000	80	16,000		
25	27.4	17,500	61.6	17,200	71.9	17,600	77.2	14,500	80	10,000
30			55	12,000	67.7	12,300	74.3	12,400	78	9500
35			48.7	8700	63.7	9100	71.3	9200	75.9	9000
40			41	6500	59.4	6900	68	7000	73.2	7100
45			31.8	4900	54.8	5200	64.7	5300	70.5	5400
50			18.7	3700	50	4000	61.3	4100	67.8	4150
55					44.8	3050	57.9	3150	65.1	3200
60					39.1	2250	54.4	2350	62.4	2400
65					32.7	1600	50.7	1700	59.7	1750
70					24.6	1050	46.8	1150	56.9	1200
	0	12 400	0	3150						

31 ft JIB RATED LOADS						
RADIUS FULLY EXTENDED	LOADED BOOM ANGLE	RATED LOADS ALL BOOM LENGTHS				
30 ft	80	3400				
46 ft	75	3200				
58 ft	70	900				

RATED LOAD REDUCTIONS WITH JIB								
	31 ft JIB STOWED	31 ft JIB ERECTED						
BOOM LENGTH								
31 ft	Reduce load 800 lb	Reduce load 2300 lb						
55 ft	Reduce load 450 lb	Reduce load 2000 lb						
79 ft	Reduce load 350 lb	Reduce load 1900 lb						
103 ft	Reduce load 250 lb	Reduce load 1800 lb						
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NOTE:

- Operate with jib by radius when main boom is fully extended. If necessary increase boom angle to maintain loaded radius.
- Operate with jib by boom angle when main boom is not fully extended. Do not exceed rated jib capacities at any reduced boom lengths.
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- 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.