

# STERLING CRANE



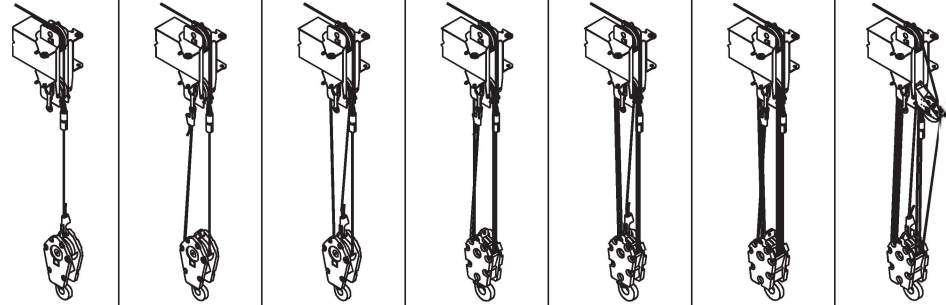
## Specifications

### 900H winch data

### NOTICE

- Do not deadhead line block against boom tip when extending boom
- Keep at least 3 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
- Maximum capacity with high speed winch is 3000 lb

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			95 ft boom 145 ft Boom and jib	95 ft	82 ft	69 ft	56 ft	43 ft	29 ft
			105 ft boom 154 ft Boom and jib	105 ft	76 ft	61 ft	46 ft	46 ft	32 ft
Winch	Cable supplied	Average 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	38,500 lb	7700 lb 160 fpm	15,400 lb 80 fpm	23,100 lb 53 fpm	30,800 lb 40 fpm	38,500 lb 32 fpm	46,200 lb 27 fpm	54,000 lb 23 fpm
High speed winch	9/16 in diameter rotation resistant	38,500 lb	3000 lb 310+ fpm	6000 lb 155 fpm	9000 lb 103 fpm	12,000 lb 78 fpm	15,000 lb 62 fpm	18,000 lb 52 fpm	21,000 lb 44 fpm

All winch pulls and speeds 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:

5 t	Downhaul weight	150 lb
12 t	1 sheave block	270 lb
19 t	2 sheave block	350 lb
30 t	3 sheave block	575 lb

**Winch**  
Standard planetary

**4th layer drum pull**  
7700 lb (low speed)  
(3000 lb "burst of speed")

**Allowable cable pull**  
7700 lb

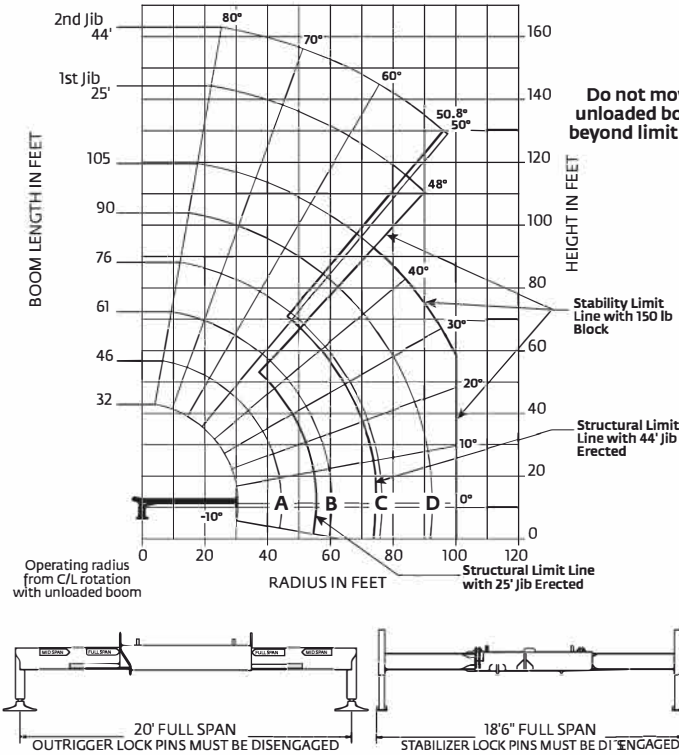
# STERLING CRANE



## Capacities

Series 9105H: 105 ft boom with 25 ft – 44 ft jib, full span outrigger and stabilizer

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

#### 32 ft – 105 ft BOOM RATED LOADS WITHOUT JIB

LOADED RADIUS (ft)	LOADED BOOM ANGLE (deg)	32 ft BOOM (lb)	LOADED BOOM ANGLE (deg)	A 46 ft BOOM (lb)	LOADED BOOM ANGLE (deg)	B 61 ft BOOM (lb)	LOADED BOOM ANGLE (deg)	C 76 ft BOOM (lb)	LOADED BOOM ANGLE (deg)	D 90 ft BOOM (lb)	LOADED BOOM ANGLE (deg)	105 ft BOOM (lb)
5	77.2	54,000										
8	71.5	40,000	77.6	29,000								
10	67.6	34,000	75	27,000								
12	63.5	30,000	72.4	24,950	77.4	24,000						
14	59.4	24,000	69.7	22,850	75.4	22,000	78.6	19,000				
16	55	22,000	67	20,450	73.5	20,000	77.1	17,000				
20	45.4	16,500	61.3	16,950	69.4	16,000	73.9	14,500	77.5	13,000		
25	30.2	12,000	53.8	12,900	64.2	13,000	69.9	12,000	74.3	11,000	77.5	10,000
30			45.4	10,000	58.7	10,000	65.7	9500	70.8	8750	74.7	9000
35			35.5	7750	52.9	8000	61.4	8000	67.6	7500	72.1	8500
40			23.3	6300	47.1	6650	57.3	6750	64	6500	69.2	7100
45					39.8	5300	52.6	5500	60.3	5500	66.1	5800
50					31.5	4300	47.5	4550	56.4	4450	62.8	4850
55					20.3	3500	42	3700	52.3	3850	59.5	3950
60							35.7	2950	47.9	3100	56	3200
65							28.3	2300	43.2	2500	52.4	2600
70							18.3	1800	38	2000	48.6	2100
75									32.2	1600	44.6	1650
80									25	1200	40.3	1300
85									14.8	850	35.5	950
90											30.1	650
	0	8000	0	4500	0	2500	0	1300	0	500		

#### 25 ft – 44 ft JIB RATED LOADS

LOADED RADIUS (ft)	LOADED BOOM ANGLE (deg)	25 ft JIB (lb)	LOADED BOOM ANGLE (deg)	44 ft JIB (lb)
40	73.9	4400		
45	71.9	4400	74.7	2800
50	69.6	4100	72.9	2700
55	67.2	3600	71.1	2650
60	64.5	2850	69.2	2500
65	61.7	2250	67.1	2300
70	58.9	1750	65.1	2200
75	56	1300	62.8	1950
80	53.1	900	60.2	1550
85	50	550	57.5	1150
90			54.8	850
95			52	550

#### RATED LOAD REDUCTIONS WITH STOWED JIB

BOOM LENGTH (ft)	25 ft – 44 ft JIB STOWED
32	Reduce load 800 lb
46	Reduce load 600 lb
61	Reduce load 450 lb
76	Reduce load 350 lb
90	Reduce load 300 lb
105	Reduce load 250 lb

### Note:

1. All capacities are in pounds, angles in degrees and radii in feet.
2. Loaded boom angles are given as reference only.
3. Shaded areas are structurally limited capacities.
4. Handling of personnel is only permitted with full span extension of all outrigger and stabilizer beams.

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.