



## Hook Elevation Diagram

Main boom and lattice extension - 79 ft./52 ft./32 ft. 0 - 16 - 30° offsets

46.3\* lbs.  
Counterweight

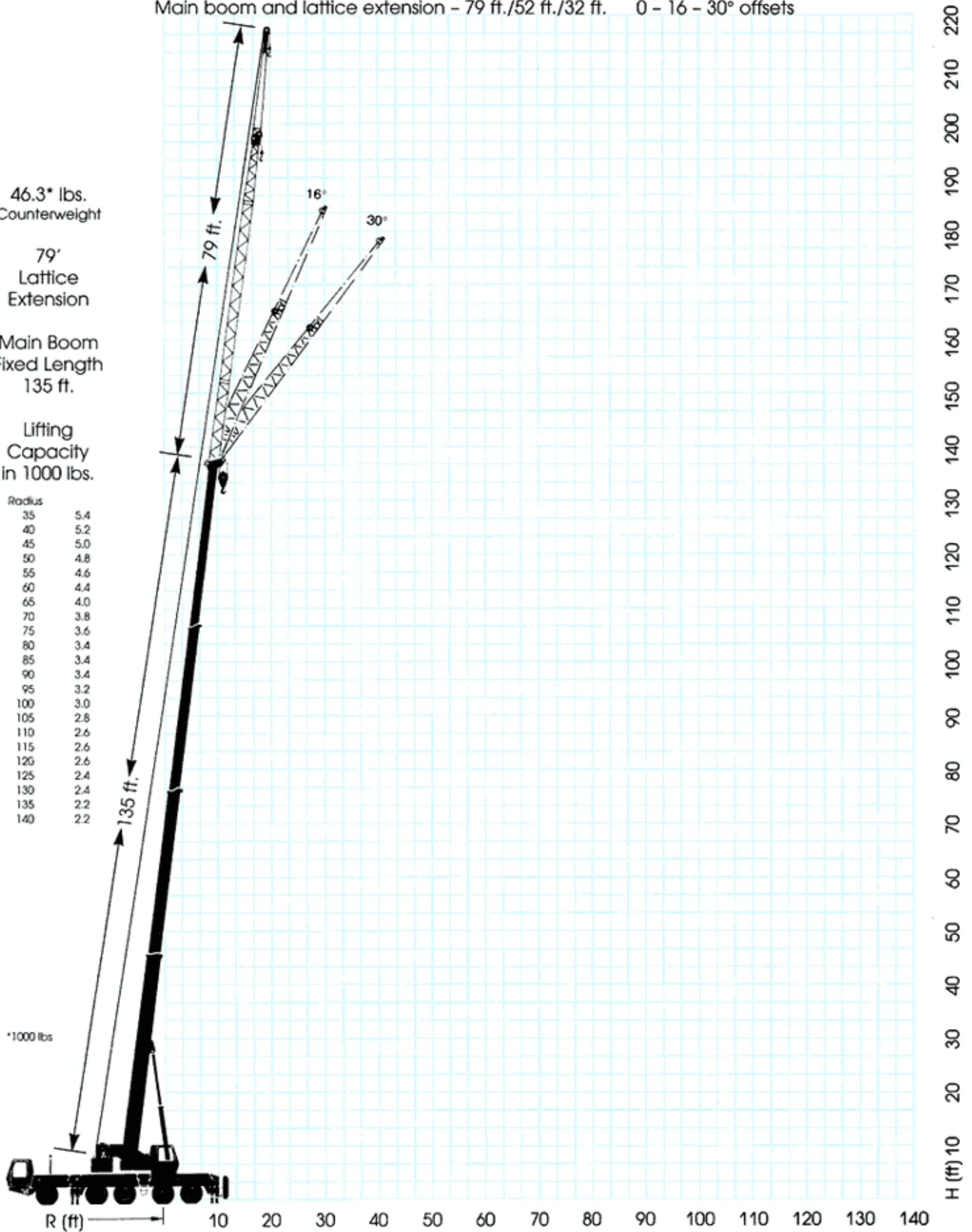
79'  
Lattice  
Extension

Main Boom  
Fixed Length  
135 ft.

Lifting  
Capacity  
in 1000 lbs.

Radius	Lifting Capacity (1000 lbs)
35	5.4
40	5.2
45	5.0
50	4.8
55	4.6
60	4.4
65	4.0
70	3.8
75	3.6
80	3.4
85	3.4
90	3.4
95	3.2
100	3.0
105	2.8
110	2.6
115	2.6
120	2.6
125	2.4
130	2.4
135	2.2
140	2.2

\*1000 lbs



# STERLING CRANE

## Main Boom + swing-away extension

Lifting Capacities in 1000 lbs



33/53 ft



360°

Counterweight **46,3\*** lbs

Radius ft	Main boom length 135 ft						Radius ft
	Lattice extension length 33 ft			Lattice extension length 53 ft			
	0°	16°	30°	0°	16°	30°	
30	18.2			9.8			30
35	18.2	14.6		9.8			35
40	18.2	14.6	11.0	9.8	7.2		40
45	18.2	14.6	11.0	9.8	7.2		45
50	18.2	14.0	11.0	9.8	7.2	6.0	50
55	17.6	13.4	10.8	9.8	7.2	6.0	55
60	17.0	12.8	10.6	9.6	7.2	6.0	60
65	16.2	12.2	10.2	9.2	7.2	6.0	65
70	15.6	11.6	9.8	9.0	7.2	6.0	70
75	14.8	11.2	9.6	8.6	7.2	6.0	75
80	14.2	10.8	9.2	8.4	7.0	6.0	80
85	13.4	10.2	9.0	8.0	6.8	6.0	85
90	12.8	9.8	8.8	7.8	6.8	6.0	90
95	12.2	9.4	8.4	7.6	6.6	6.0	95
100	11.6	9.0	8.2	7.4	6.6	6.0	100
105	11.0	8.8	8.0	7.2	6.4	6.0	105
110	10.4	8.4	7.8	7.0	6.4	6.0	110
115	9.4	8.0	7.6	6.8	6.2	5.8	115
120	8.2	7.8	7.4	6.6	6.2	5.8	120
125	7.4	7.6	7.2	6.4	6.0	5.6	125
130	6.4	6.8	7.0	6.2	6.0	5.6	130
135	5.6	6.0	6.2	6.2	5.8	5.6	135
140	5.0	5.2	5.2	6.0	5.6	5.4	140
145	4.4	4.4	4.6	5.4	5.6	5.4	145
150	3.6	3.8	3.8	4.8	5.2	5.2	150
160				3.6	4.0	4.0	160
	T1	1	1	1	1	1	T1
	T2	1	1	1	1	1	T2
	T3	1	1	1	1	1	T3
	T4	0	0	0	0	0	T4

Counterweight **27,8\*** lbs

Radius ft	Main boom length 135 ft						Radius ft
	Lattice extension length 33 ft			Lattice extension length 53 ft			
	0°	16°	30°	0°	16°	30°	
30	18.2			9.8			30
35	18.2	14.6		9.8			35
40	18.2	14.6	11.0	9.8	7.2		40
50	18.2	14.0	11.0	9.8	7.2	6.0	50
60	17.0	12.8	10.6	9.6	7.2	6.0	60
70	15.6	11.6	9.8	9.0	7.2	6.0	70
80	14.2	10.8	9.2	8.4	7.0	6.0	80
85	13.2	10.2	9.0	8.0	6.8	6.0	85
90	11.4	9.8	8.8	7.8	6.8	6.0	90
95	10.0	9.4	8.4	7.6	6.6	6.0	95
100	8.8	9.0	8.2	7.4	6.6	6.0	100
105	7.6	8.2	8.0	7.2	6.4	6.0	105
110	6.4	7.0	7.4	7.0	6.4	6.0	110
115	5.6	6.0	6.4	6.6	6.2	5.8	115
120	4.6	5.2	5.4	5.8	6.2	5.8	120
125	4.0	4.4	4.6	5.0	5.8	5.6	125
130	3.2	3.6	3.8	4.4	5.0	5.4	130
135	2.6	2.8	3.0	3.6	4.2	4.6	135
140	2.0	2.2	2.2	3.0	3.6	4.0	140
145				2.4	3.0	3.2	145
150				2.0	2.4	2.6	150
155					1.8	2.0	155
	T1	1	1	1	1	1	T1
	T2	1	1	1	1	1	T2
	T3	1	1	1	1	1	T3
	T4	0	0	0	0	0	T4



# STERLING CRANE

## Main boom

Lifting capacities in 1000 lbs



42 - 135 ft



360°

Counterweight **9.3\*** lbs

Radius ft	42 ft	57 ft	73 ft	73 ft	73 ft	104 ft	104 ft	135 ft	Radius ft
10	218.0	147.0	87.0						10
15	150.0	147.0	87.0	116.0	68.0				15
20	108.0	106.0	87.0	101.0	68.0	63.0	38.8		20
25	84.0	82.0	83.0	81.0	67.0	60.0	38.8	34.0	25
30	67.0	65.0	66.0	63.0	59.0	52.0	35.6	34.0	30
35		47.0	48.0	45.0	51.0	45.0	31.2	33.2	35
40		35.4	36.6	33.8	39.4	35.8	27.8	30.2	40
45		27.4	28.6	25.8	31.4	28.0	25.2	27.6	45
50			22.6	20.0	25.4	22.0	23.2	25.0	50
55			18.2	15.6	20.8	17.6	22.0	20.6	55
60			14.6	12.2	17.2	14.0	20.4	16.8	60
65						11.2	17.4	14.0	65
70						8.8	14.8	11.6	70
75						6.6	12.8	9.4	75
80						5.0	11.0	7.6	80
85						3.4	9.4	6.2	85
90						2.2	8.0	4.8	90
95								3.6	95
100								2.6	100
105									105
110									110
115									115
120									120
T1	0	0.5	0.5	1	0	1	0	1	T1
<b>%</b> T2	0	0	0.5	0	1	1	1	1	T2 <b>%</b>
T3	0	0	0	0	0	0	1	1	T3

\*1000 lbs

Counterweight **0\*** lbs

Radius ft	42 ft	57 ft	73 ft	73 ft	73 ft	104 ft	104 ft	135 ft	Radius ft
10	218.0	147.0	87.0						10
15	144.0	142.0	87.0	116.0	68.0				15
20	104.0	101.0	87.0	86.0	68.0	63.0	38.8		20
25	80.0	69.0	63.0	59.0	67.0	51.0	38.8	34.0	25
30	57.0	49.0	46.0	42.4	50.0	38.2	35.6	34.0	30
35		37.6	35.4	32.0	39.0	29.6	31.2	29.2	35
40		28.4	27.8	24.4	31.2	22.8	27.8	23.4	40
45		21.6	21.8	18.4	25.4	17.6	25.2	18.6	45
50			17.2	13.8	20.4	13.6	21.6	15.0	50
55			13.2	10.4	16.0	10.4	18.0	12.0	55
60			9.8	7.2	12.6	7.8	15.2	9.6	60
65						5.6	13.0	7.6	65
70						3.8	11.0	5.8	70
75						2.4	9.2	4.4	75
80							7.6	3.2	80
85							6.2	2.0	85
90							5.0		90
95									95
100									100
105									105
110									110
115									115
120									120
T1	0	0.5	0.5	1	0	1	0	1	T1
<b>%</b> T2	0	0	0.5	0	1	1	1	1	T2 <b>%</b>
T3	0	0	0	0	0	0	1	1	T3

# STERLING CRANE

## Main boom

Lifting capacities in 1000 lbs



42 - 135 ft



360°

Counterweight **46.3\*** lbs

Radius ft	42 ft	57 ft	73 ft	73 ft	73 ft	104 ft	104 ft	135 ft	Radius ft
10°	240.0								10°
10	218.0	147.0	87.0						10
15	168.0	147.0	87.0	116.0	68.0				15
20	125.0	123.0	87.0	101.0	68.0	63.0	38.8		20
25	97.0	96.0	87.0	87.0	67.0	60.0	38.8	34.0	25
30	79.0	77.0	76.0	76.0	59.0	52.0	35.6	34.0	30
35		64.0	65.0	63.0	53.0	47.0	31.2	33.2	35
40		54.0	55.0	53.0	48.0	41.8	27.8	30.2	40
45		46.0	47.0	45.0	44.0	38.0	25.2	27.6	45
50			41.0	39.0	40.6	34.8	23.2	25.4	50
55			36.0	33.8	37.6	32.2	22.0	23.6	55
60			31.0	28.6	33.4	29.6	21.0	21.8	60
65						26.0	20.4	20.4	65
70						22.4	20.0	19.2	70
75						19.4	19.6	18.0	75
80						16.8	19.2	17.0	80
85						14.6	18.8	16.2	85
90						12.6	18.0	15.0	90
95								13.2	95
100								11.8	100
105								10.4	105
110								9.2	110
115								8.0	115
120								7.0	120
T1	0	0.5	0.5	1	0	1	0	1	T1
<b>%</b> T2	0	0	0.5	0	1	1	1	1	T2 <b>%</b>
T3	0	0	0	0	0	0	1	1	T3

\*over rear only

\*1000 lbs

Counterweight **27.8\*** lbs

Radius ft	42 ft	57 ft	73 ft	73 ft	73 ft	104 ft	104 ft	135 ft	Radius ft
10°									10°
10	218.0	147.0	87.0						10
15	161.0	147.0	87.0	116.0	68.0				15
20	116.0	114.0	87.0	101.0	68.0	63.0	38.8		20
25	90.0	89.0	87.0	87.0	67.0	60.0	38.8	34.0	25
30	73.0	71.0	72.0	70.0	59.0	52.0	35.6	34.0	30
35		59.0	60.0	58.0	53.0	47.0	31.2	33.2	35
40		49.0	50.0	48.0	48.0	41.8	27.8	30.2	40
45		39.4	40.4	37.8	43.0	38.0	25.2	27.6	45
50			33.0	30.4	35.6	32.6	23.2	25.4	50
55			27.4	24.8	30.0	26.8	22.0	23.6	55
60			22.8	20.4	25.4	22.2	21.0	21.8	60
65						18.6	20.4	20.4	65
70						15.6	20.0	18.4	70
75						13.2	19.0	15.8	75
80						11.0	16.8	13.6	80
85						9.2	14.8	11.6	85
90						7.6	13.2	10.0	90
95								8.6	95
100								7.4	100
105								6.2	105
110								5.2	110
115								4.2	115
120								3.4	120
T1	0	0.5	0.5	1	0	1	0	1	T1
<b>%</b> T2	0	0	0.5	0	1	1	1	1	T2 <b>%</b>
T3	0	0	0	0	0	0	1	1	T3

# STERLING CRANE

## Main Boom + swing-away extension

Lifting Capacities in 1000 lbs



33/53 ft



360°

Counterweight 9,3\* lbs

Radius		Main boom length 135 ft						Radius	
		Lattice extension length 33 ft			Lattice extension length 53 ft				
		0°	16°	30°	0°	16°	30°		
ft								ft	
25		18.2						25	
30		18.2			9.8			30	
35		18.2	14.6		9.8			35	
40		18.2	14.6	11.0	9.8	7.2		40	
45		18.2	14.6	11.0	9.8	7.2		45	
50		18.2	14.0	11.0	9.8	7.2	6.0	50	
55		17.6	13.4	10.8	9.8	7.2	6.0	55	
60		17.0	12.8	10.6	9.6	7.2	6.0	60	
65		15.8	12.2	10.2	9.2	7.2	6.0	65	
70		13.2	11.6	9.8	9.0	7.2	6.0	70	
75		11.2	11.2	9.6	8.6	7.2	6.0	75	
80		9.4	10.4	9.2	8.4	7.0	6.0	80	
85		7.8	8.8	9.0	8.0	6.8	6.0	85	
90		6.4	7.2	7.8	7.6	6.8	6.0	90	
95		5.2	6.0	6.4	6.4	6.6	6.0	95	
100		4.2	4.8	5.2	5.2	6.6	6.0	100	
105		3.2	3.8	4.2	4.4	5.4	6.0	105	
110		2.4	2.8	3.2	3.4	4.6	5.2	110	
115			2.0	2.4	2.6	3.6	4.4	115	
120					2.0	2.8	3.4	120	
125						2.2	2.8	125	
130							2.0	130	
%									
	T1	1	1	1	1	1	1	T1	
	T2	1	1	1	1	1	1	T2	
	T3	1	1	1	1	1	1	T3	
	T4	0	0	0	0	0	0	T4	

\*1000 lbs

### Notes for lifting capacities

Rated loads do not exceed 85% of tipping load with the machine properly levelled on firm ground.

360° duties - on outriggers fully extended.

Note counterweight required as listed in relevant lifting capacity columns.

For safe crane operation due allowance must be made to compensate for high winds, side load, pendulum action and other hazardous conditions. No side pull permitted.

Hook blocks, slings and / or boom attachments are considered part of load, and their weight must be deducted from the rated lifting capacity to determine the net load.

Boom must be extended in accordance with sequence as noted on lifting capacity chart.

Consult crane manual to determine weight reduction for load handling devices and boom attachments.

Operate crane strictly in compliance with operator's manual.



# STERLING CRANE

## Weights/Working speeds



Axle	1	2	3	4	5	Total weight
1000 lbs	23,5	23,5	23,5	20,0	20,0	110,5



Lifting capacity tons	Sheaves	Parts of line	Weight lbs
100	7	4 - 13	2200
50	3	1 - 7	1200
20	1	1 - 3	780



Gear	1	2	3	4	5	R	Gradeability max.
On-Road (mph)	8,0	13,0	21,0	31,0	43,0	9,0	
Off-Road (mph)	4,6	7,3	11,4	16,8	23,1	4,9	52 %
Tyres	14.00 R 25						



Drives	infinitely variable	Rope diameter/Rope length	Max. single line pull
Main hoist	0 - 390 ft/min single line	19 mm (3/4") 780 ft	15000 lbs
Auxiliary hoist	0 - 390 ft/min single line	19 mm (3/4") 590 ft	15000 lbs
Swing	0 - 1,8 min <sup>-1</sup>		
Boom lift	approx. 65 seconds to reach - 3° to + 84°		
Telescoping	approx. 200 seconds for boom length from 42 - 135 ft		



Telescopic boom



On outriggers



Working range



Axle load



Hook blocks and hook



Crane movements



Speed



Swing-away lattice

## Carrier

<b>Chassis:</b>	Special KRUPP 5-axle carrier, all-welded torsion-resistant box-type construction made of close grain steel.
<b>Outriggers:</b>	4 – 2 stage hydraulically telescoping beams with vertical cylinders and outrigger pads. Independent horizontal and vertical movement control on each side of the chassis.
<b>Engine:</b>	Mercedes Benz OM 442 LA, Diesel, 8 cylinders, water-cooled, with turbocharger and supercharger intercooler, 370 kW (503 HP) at 2100 min <sup>-1</sup> . [EG 80/1269 fan loose]. Max. torque: 2020 Nm at 1100 – 1600 min <sup>-1</sup> . Tank capacity: 100 gal.
<b>Transmission:</b>	Allison automatic CLBT 755.
<b>Transfer case:</b>	Transfer case with 2 speeds and longitudinal differential lock.
<b>Axle lines:</b>	5 axle lines: 2, 3, and 5 are driven axle lines; 1, 2, 3 and 5 are steering axle lines; the 4th axle line is rigid.
<b>Suspension:</b>	All axle lines with lockable hydropneumatic suspension and hydraulic axle lock-out. Suspension level control. Range: + 6½"/– 5½".
<b>Tires:</b>	10 tires 14.00 R 25.
<b>Steering:</b>	Dual-circuit, stand-by steering pump.
<b>Brakes:</b>	Service brake: pneumatic dual-circuit, acting on all wheels, air dryer. Permanent brake: hydraulic retarder, integrated within Allison automatic powershift. Hand brake: pneumatically operated spring-loaded brake acting on 2nd, 3rd, 4th and 5th axle line.
<b>Driver's cab:</b>	<b>Aluminum</b> , 2-man-design, safety glass, driver's seat with hydraulic suspension, engine hot-water heater. Complete instrumentation and driving controls.
<b>Electrical system:</b>	Three-phase generator 28 V/55 A, 2 batteries 12 V/170 Ah, lighting system and signals 24 V.

## Superstructure

<b>Frame:</b>	Torsion-resistant welded construction in high strength steel.
<b>Engine:</b>	Mercedes-Benz OM 366 A, Diesel, 6 cylinders, water-cooled, 104 kW (141 HP) at 1800 min <sup>-1</sup> . [EG 80/1269 fan rigid]. Max. torque: 566 Nm at 1500 – 1600 min <sup>-1</sup> . Tank capacity: 50 gal.
<b>Hydraulic system:</b>	3 separate circuits. Tank capacity: 330 gal hydraulic oil.
<b>Control system:</b>	Infinite variation of all crane movements by control levers with automatic reset to zero.
<b>Main hoist:</b>	Rope drum with special grooving and integrated planetary gear with multiple-disk brake and axial piston motor.
<b>Derricking</b>	1 cylinder. Boom angle from –1,5° to +85°.
<b>Slewing:</b>	Vane motor, planetary gear, service brake and holding brake.
<b>Cab:</b>	<b>Aluminium</b> , full vision, safety glass, adjustable operator's seat with hydraulic suspension, motor-dependent hot-water heater. Armrest-integrated crane controls. Ergonomically arranged instrumentation and crane operating.
<b>Safety installations:</b>	Hoist and lowering limit switch, pipe beak safety valves, pressure relief valves.
<b>Telescopic boom:</b>	Welded construction in high strength steel, 1 pivot basic section, 3 telescopic sections. Total boom length 135 ft, hydraulic extension.
<b>Electrical system:</b>	Three-phase generator 28 V/55 A, 2 batteries 12 V/143 Ah.

## Additional equipment

<b>Drive:</b>	10 x 8
<b>Steer:</b>	All-wheel steer. 10 x 10
<b>Tires:</b>	16.00 R 25/20,5 R 25
<b>Swing-away lattice:</b>	2-stage, stowing alongside boom, 33 – 52 ft + 26 ft insert.
<b>Aux. hoist:</b>	2nd hoisting gear.
<b>Driver's cab/cab:</b>	Engine-independent heater usable as engine preheater.
<b>Safe load indicator:</b>	Electronic load moment safety device with automatic cut-out and digital display for actual and admissible load, radius and various working conditions.



# STERLING CRANE

## Dimensions

