

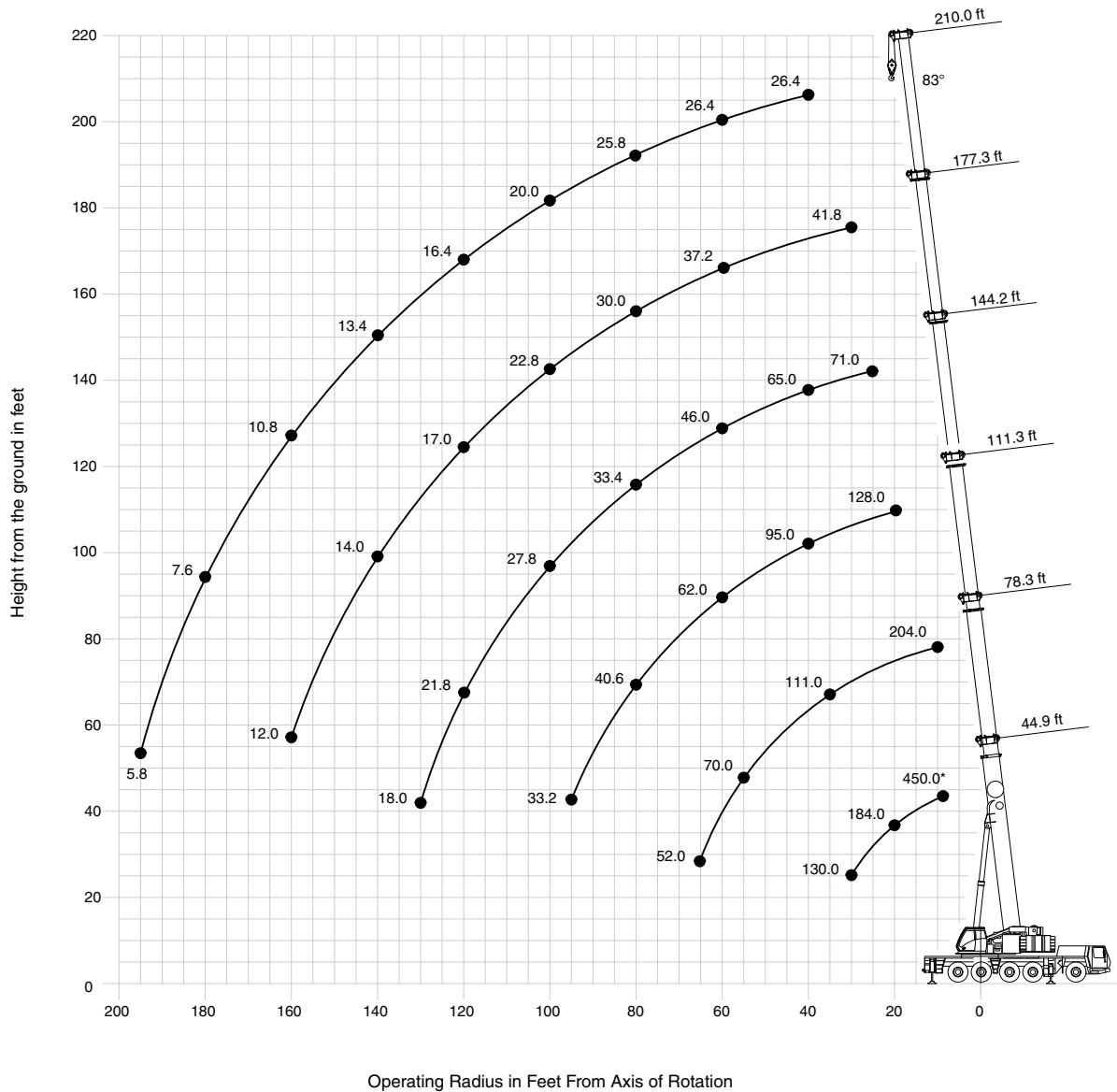


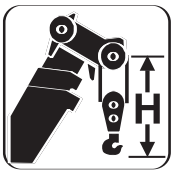
LIFTING CHARTS - All Terrain Cranes

GROVE MODEL GMK5225 - 225 TON CAPACITY

## working range

45-210 ft (13.7 - 64 m) main boom



	Hook block (US <sub>t</sub> )	(ft)
	200D	12.0
160D	12.0	
125D	10.9	
80D	10.9	
32E	10.5	
12 H/B	8.0	

\*Over rear

Hook heights shown in the working range diagram do not consider loaded boom deflection.

# STERLING CRANE

## load charts

	Pounds (thousands)										
Feet	44.9	61.7	78.3	94.8	111.3	127.5	144.2	160.8	177.3	193.8	210.0
8.0	450.0*										
9.0	310.0										
10.0	286.0	236.0	204.0								
15.0	230.0	217.0	189.0	169.0							
20.0	184.0	186.0	171.0	153.0	128.0	99.0					
25.0	153.0	155.0	152.0	142.0	126.0	99.0	71.0				
30.0	130.0	131.0	128.0	130.0	115.0	93.0	71.0	55.0	41.8		
35.0		114.0	111.0	112.0	105.0	87.0	71.0	54.0	41.8	33.0	
40.0		100.0	99.0	98.0	95.0	80.0	65.0	53.0	41.8	33.0	26.4
45.0		88.0	88.0	86.0	88.0	75.0	59.0	51.0	41.2	33.0	26.4
50.0			78.0	77.0	79.0	70.0	54.0	48.0	40.2	33.0	26.4
55.0			70.0	68.0	70.0	66.0	50.0	45.0	39.0	33.0	26.4
60.0			62.0	60.0	62.0	61.0	46.0	42.0	37.2	32.2	26.4
65.0			52.0	55.0	56.0	57.0	41.6	39.4	35.4	31.2	26.4
70.0				51.0	50.0	51.0	38.8	36.8	33.8	30.0	26.4
75.0				46.0	45.0	47.0	36.0	34.2	32.0	28.8	26.4
80.0					40.6	42.0	33.4	32.0	30.0	27.6	25.8
85.0					38.4	38.0	31.6	29.8	28.0	26.6	24.4
90.0					36.2	34.4	30.2	28.0	26.2	25.2	23.0
95.0					33.2	31.4	29.0	26.2	24.6	23.8	21.4
100.0						28.6	27.8	24.6	22.8	22.0	20.0
105.0						26.2	26.6	23.2	20.4	19.8	19.0
110.0						24.0	25.6	21.4	19.2	18.6	18.2
115.0							23.6	19.8	18.2	17.6	17.2
120.0							21.8	18.2	17.0	16.6	16.4
125.0							20.2	16.8	16.2	15.6	15.6
130.0							18.0	16.2	15.2	14.8	14.8
135.0								15.6	14.6	14.0	14.0
140.0								15.2	14.0	13.2	13.4
145.0									13.4	12.6	12.6
150.0									13.0	11.8	12.0
155.0									12.6	11.0	11.4
160.0									12.0	10.4	10.8
165.0										10.0	10
170.0										9.6	9.2
175.0										9.2	8.4
180.0											7.6
185.0											7.0
190.0											6.4
195.0											5.8

\* over rear with special equipment

	Pounds (thousands)										
Feet	44.9	61.7	78.3	94.8	111.3	127.5	144.2	160.8	177.3	193.8	210.0
10.0	286.0	236.0	204.0								
15.0	224.0	217.0	189.0	169.0							
20.0	180.0	182.0	171.0	153.0	128.0	99.0					
25.0	150.0	151.0	148.0	142.0	126.0	99.0	71.0				
30.0	127.0	128.0	125.0	127.0	115.0	93.0	71.0	55.0	41.8		
35.0		111.0	111.0	109.0	105.0	87.0	71.0	54.0	41.8	33.0	
40.0		97.0	97.0	94.0	92.0	80.0	65.0	53.0	41.8	33.0	26.4
45.0		83.0	83.0	79.0	79.0	75.0	59.0	51.0	41.2	33.0	26.4
50.0			72.0	70.0	68.0	68.0	54.0	48.0	40.2	33.0	26.4
55.0			63.0	64.0	59.0	60.0	50.0	45.0	39.0	33.0	26.4
60.0			56.0	56.0	54.0	53.0	46.0	42.0	37.2	32.2	26.4
65.0			50.0	49.0	50.0	47.0	41.6	39.4	35.4	31.2	26.4
70.0				43.2	46.0	42.6	38.8	36.8	33.8	30.0	26.4
75.0				40.4	40.8	38.4	35.6	34.2	32.0	28.8	26.4
80.0					36.6	34.8	33.2	31.2	30.0	27.6	25.8
85.0					33.0	31.2	31.6	28.2	28.0	26.6	24.4
90.0					30.0	28.0	29.8	25.6	25.6	25.2	23.0
95.0					27.2	26.2	27.0	23.2	23.4	23.6	21.4
100.0						25.2	24.6	21.4	21.2	21.6	20.0
105.0						24.0	22.4	19.6	19.4	19.8	19.0
110.0						22.2	20.4	18.8	18.0	18.2	18.2
115.0							18.6	18.2	17.2	16.6	17.2
120.0							17.2	17.4	16.6	15.4	15.8
125.0							15.6	16.6	15.8	14.6	14.6
130.0							14.6	15.2	15.2	13.8	13.4
135.0								14.0	14.2	13.2	12.4
140.0								12.8	13.0	12.4	11.2
145.0									12.0	11.4	10.2
150.0									11.0	10.4	9.2
155.0									10.0	9.6	8.4
160.0									9.2	8.8	7.6
165.0										8.0	6.8
170.0										7.2	6.0
175.0										6.6	5.4
180.0											4.6
185.0											4.0
190.0											3.6
195.0											3.0

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.

# STERLING CRANE

## load charts

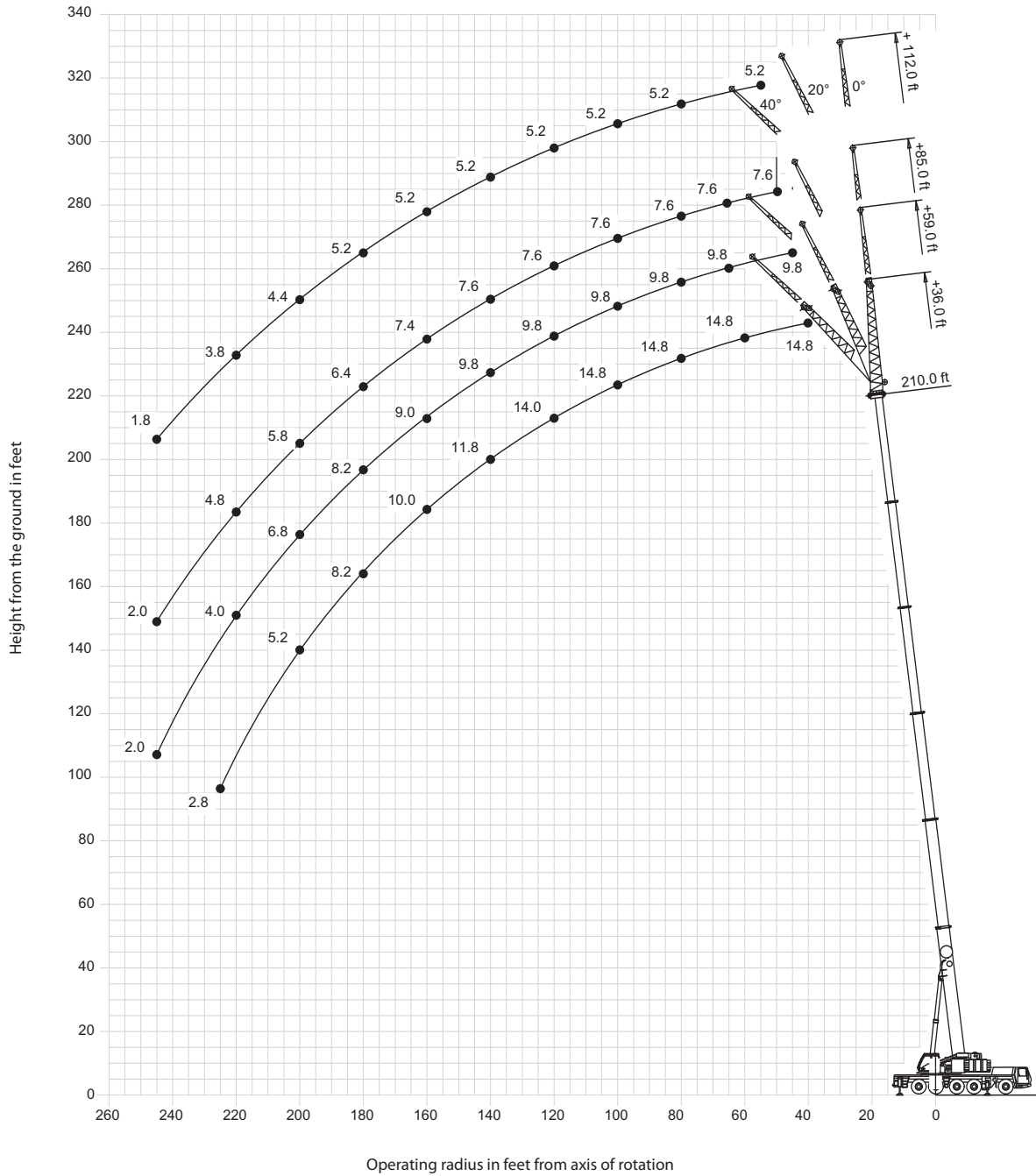
	Pounds (thousands)										
Feet	44.9	61.7	78.3	94.8	111.3	127.5	144.2	160.8	177.3	193.8	210.0
10.0	278.0	236.0	204.0								
15.0	215.0	214.0	189.0	169.0							
20.0	172.0	173.0	170.0	153.0	128.0	99.0					
25.0	141.0	142.0	136.0	124.0	119.0	99.0	71.0				
30.0	112.0	111.0	103.0	100.0	91.0	89.0	71.0	55.0	41.8		
35.0		90.0	85.0	80.0	79.0	73.0	67.0	54.0	41.8	33.0	
40.0		73.0	70.0	69.0	65.0	60.0	56.0	53.0	41.8	33.0	26.4
45.0		60.0	59.0	59.0	55.0	51.0	51.0	45.0	41.2	33.0	26.4
50.0			50.0	51.0	48.0	44.0	44.0	38.6	38.0	33.0	26.4
55.0			45.0	44.0	41.2	40.8	38.4	35.2	35.2	32.8	26.4
60.0			38.4	38.8	36.2	37.0	33.6	33.0	33.0	31.4	26.4
65.0			33.4	33.8	31.8	32.8	29.6	29.8	29.2	27.8	25.6
70.0				29.6	29.4	29.2	27.2	27.4	26.8	24.8	22.6
75.0				26.0	27.8	26.2	25.6	25.4	24.0	22.0	20.0
80.0					24.8	23.6	23.8	23.0	21.6	19.8	17.8
85.0					22.0	21.0	21.4	20.8	19.4	17.6	15.8
90.0					19.8	18.6	19.4	18.8	17.4	15.8	14.0
95.0					17.8	17.6	17.6	17.0	15.8	14.2	12.4
100.0						16.8	16.2	15.4	14.2	12.6	11.0
105.0						15.2	14.6	14.0	12.8	11.4	9.6
110.0						13.6	13.2	12.6	11.6	10.2	8.4
115.0							12.0	11.4	10.6	9.0	7.4
120.0							10.8	10.2	9.4	8.0	6.4
125.0							9.8	9.0	8.4	7.0	5.4
130.0							8.8	8.2	7.4	6.2	4.6
135.0								7.2	6.4	5.4	3.8
140.0								6.4	5.6	4.6	3.2
145.0									4.8	3.8	2.4
150.0									4.2	3.2	1.8
155.0									3.6	2.6	
160.0									3.0	2.0	

	Pounds (thousands)										
Feet	44.9	61.7	78.3	94.8	111.3	127.5	144.2	160.8	177.3	193.8	210.0
10.0	266.0	236.0	204.0								
15.0	203.0	204.0	184.0	156.0							
20.0	134.0	123.0	112.0	105.0	94.0	83.0					
25.0	86.0	85.0	81.0	75.0	68.0	66.0	59.0				
30.0	60.0	61.0	60.0	56.0	55.0	51.0	49.0	46.0	39.6		
35.0		47.0	46.0	46.0	44.0	42.8	40.2	37.4	34.6	31.4	
40.0		36.8	37.8	38.0	35.8	35.2	33.0	30.6	28.4	25.6	23.0
45.0		29.2	31.0	31.4	30.4	29.4	27.6	25.6	23.6	21.2	18.6
50.0			25.6	26.2	25.6	24.8	23.2	21.4	19.8	17.6	15.2
55.0			21.2	22.2	21.6	21.0	19.6	18.0	16.6	14.6	12.4
60.0			17.4	19.0	18.6	18.0	16.8	15.4	13.8	12.0	10.0
65.0			14.2	16.2	15.8	15.4	14.2	13.0	11.6	9.8	8.0
70.0				13.6	13.6	13.2	12.2	11.0	9.8	8.0	6.2
75.0				11.4	11.8	11.4	10.4	9.2	8.0	6.4	4.6
80.0					10.0	9.8	8.8	7.8	6.6	5.0	3.4
85.0					8.4	8.4	7.6	6.4	5.4	3.8	2.2
90.0					7.0	7.2	6.4	5.2	4.2	2.8	
95.0					5.8	6.0	5.2	4.2	3.2		
100.0						4.8	4.2	3.4	2.2		
105.0						3.8	3.4	2.4			
110.0						3.0	2.6				

## working range

offsettable swingaway

**210 (64 m) main boom, 36-59 ft (11-18 m) swingaway and 2 x 26 ft (8 m) inserts**



Hook heights shown in the working range diagram do not consider loaded boom deflection.

# STERLING CRANE

## load charts

hydraulic offsettable swingaway

**Intermediate Angle**

210 ft. (64 m)    36-59-85-112 ft. (11-18-26-34 m)    116,800 lbs. (53,000 kg)    100%    360°  
25.6 ft. Spread

Feet	210' + 36'			210' + 59'			210' + 85'			210' + 112'		
	0°	0°- 20°	20°- 40°	0°	0°- 20°	20°- 40°	0°	0°- 20°	20°- 40°	0°	0°- 20°	20°- 40°
40.0	14.8											
45.0	14.8			9.8								
50.0	14.8			9.8			7.6					
55.0	14.8	14.8		9.8			7.6			5.2		
60.0	14.8	14.8	14.8	9.8	9.8		7.6			5.2		
65.0	14.8	14.8	14.8	9.8	9.8		7.6			5.2		
70.0	14.8	14.8	14.8	9.8	9.8	9.6	7.6	7.2		5.2		
75.0	14.8	14.8	14.8	9.8	9.8	9.6	7.6	7.2		5.2	5.2	
80.0	14.8	14.8	14.8	9.8	9.8	9.4	7.6	7.2	6.2	5.2	5.2	
85.0	14.8	14.8	14.8	9.8	9.8	9.4	7.6	7.2	6.2	5.2	5.2	
90.0	14.8	14.8	14.8	9.8	9.6	9.4	7.6	7.2	6.2	5.2	5.2	3.6
95.0	14.8	14.8	14.8	9.8	9.6	9.4	7.6	7.2	6.2	5.2	5.2	3.6
100.0	14.8	14.8	14.8	9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.2	3.6
105.0	14.8	14.8	14.8	9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.2	3.6
110.0	14.8	14.4	14.2	9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.2	3.4
115.0	14.6	14.0	13.8	9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.2	3.4
120.0	14.0	13.6	13.4	9.8	9.4	9.2	7.6	7.2	6.2	5.2	5.2	3.4
125.0	13.2	13.2	13.0	9.8	9.4	9.0	7.6	7.2	6.2	5.2	5.2	3.4
130.0	12.6	12.6	12.6	9.8	9.4	9.0	7.6	7.2	6.2	5.2	5.2	3.4
135.0	12.0	12.2	12.2	9.8	9.4	9.0	7.6	7.2	6.2	5.2	5.2	3.4
140.0	11.6	11.8	11.8	9.8	9.2	8.8	7.6	7.2	6.2	5.2	5.2	3.4
145.0	11.0	11.2	11.4	9.8	9.2	8.8	7.6	7.2	6.2	5.2	5.2	3.4
150.0	10.6	10.8	11.0	9.6	9.2	8.8	7.6	7.2	6.2	5.2	5.2	3.4
155.0	10.0	10.2	10.6	9.4	9.0	8.8	7.6	7.2	6.2	5.2	5.2	3.4
160.0	9.6	9.8	10.0	9.0	8.8	8.8	7.4	7.2	6.2	5.2	5.2	3.4
165.0	9.2	9.4	9.6	8.8	8.6	8.6	7.2	7.0	6.2	5.2	5.2	3.4
170.0	8.8	9.0	9.2	8.4	8.4	8.4	7.0	6.8	6.2	5.2	5.2	3.4
175.0	8.2	8.6	8.8	8.0	8.2	8.4	6.6	6.6	6.2	5.2	5.2	3.4
180.0	7.8	7.8	8.2	7.6	8.0	8.2	6.4	6.4	6.2	5.0	5.2	3.4
185.0	7.0	7.0		7.4	7.6	8.0	6.2	6.2	6.2	5.0	5.0	3.4
190.0	6.4	6.4		7.0	7.2	7.6	6.0	6.0	6.2	4.8	4.8	3.4
195.0	5.8	5.8		6.6	6.6	7.4	5.8	5.8	6.0	4.6	4.6	3.4
200.0	5.2	5.2		6.0	6.0	6.8	5.6	5.8	5.8	4.4	4.4	3.4
205.0	4.6	4.6		5.6	5.6		5.4	5.6	5.8	4.2	4.4	3.4
210.0	4.2	4.2		5.0	5.0		5.0	5.0	5.6	4.0	4.2	3.4
215.0	3.6	3.6		4.4	4.4		4.6	4.6	5.2	4.0	4.0	3.4
220.0	3.2	3.2		4.0	4.0		4.0	4.0	4.8	3.8	3.8	3.4
225.0	2.8			3.6	3.6		3.6	3.6		3.6	3.6	3.4
230.0				3.2	3.2		3.2	3.2		3.0	3.0	3.4
235.0				2.8	2.8		2.8	2.8		2.6	2.6	3.4
240.0				2.4	2.4		2.4	2.4		2.2	2.2	
245.0				2.0			2.0	2.0		1.8	1.8	

**Loads for Luffing**

210 ft. (64 m)    36-59-85-112 ft. (11-18-26-34 m)    116,800 lbs. (53,000 kg)    100%    360°  
25.6 ft. Spread

Feet	210' + 36'		210' + 59'		210' + 85'		210' + 112'	
	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°
50.0	14.8							
55.0	14.8							
60.0	14.8	14.6	9.4					
65.0	14.8	14.6	9.4					
70.0	14.8	14.6	9.4	9.0	7.2			
75.0	14.8	14.6	9.4	9.0	7.2		5.2	
80.0	14.8	14.6	9.2	9.0	7.2	5.8	5.2	
85.0	14.8	14.6	9.2	9.0	7.2	5.8	5.2	
90.0	14.8	14.6	9.2	9.0	7.2	5.8	5.2	3.4
95.0	14.8	14.6	9.2	8.8	7.2	5.8	5.2	3.4
100.0	14.6	14.4	9.2	8.8	7.2	5.8	5.2	3.4
105.0	14.2	14.0	9.2	8.8	7.2	5.8	5.2	3.4
110.0	13.8	13.6	9.2	8.8	7.2	5.8	5.2	3.4
115.0	13.2	13.2	9.0	8.8	7.2	5.8	5.2	3.4
120.0	12.8	12.8	9.0	8.6	7.2	5.8	5.2	3.4
125.0	12.4	12.4	9.0	8.6	7.2	5.8	5.2	3.4
130.0	12.0	12.0	9.0	8.6	7.2	5.8	5.2	3.4
135.0	11.6	11.6	8.8	8.6	7.2	5.8	5.2	3.4
140.0	11.2	11.2	8.8	8.4	7.2	5.8	5.2	3.4
145.0	10.6	11.0	8.8	8.4	7.2	5.8	5.2	3.4
150.0	10.2	10.6	8.6	8.4	7.2	5.8	5.2	3.4
155.0	9.8	10.0	8.6	8.2	7.2	5.8	5.2	3.4
160.0	9.4	9.6	8.4	8.2	7.0	5.8	5.2	3.4
165.0	9.0	9.2	8.2	8.2	6.8	5.8	5.2	3.4
170.0	8.4	8.8	8.0	8.0	6.6	5.8	5.2	3.4
175.0	7.8	8.2	7.8	8.0	6.4	5.8	5.0	3.4
180.0	7.0	7.4	7.6	7.8	6.2	5.8	4.8	3.4
185.0	6.4		7.2	7.6	6.0	5.8	4.8	3.4
190.0	5.8		6.6	7.2	5.8	5.8	4.6	3.4
195.0	5.2		6.0	6.8	5.6	5.8	4.4	3.4
200.0	4.8		5.6	6.2	5.4	5.6	4.2	3.4
205.0	4.2		5.0		5.0	5.4	4.2	3.4
210.0	3.8		4.6		4.6	5.2	4.0	3.4
215.0	3.2		4.0		4.2	4.8	3.8	3.4
220.0	2.8		3.6		3.6	4.2	3.6	3.4
225.0			3.2		3.2		3.2	3.4
230.0			2.8		2.8		2.8	3.4
235.0			2.4		2.4		2.4	3.0
240.0			2.2		2.2		2.0	

# STERLING CRANE

## load charts

manual offsettable swingaway



210 ft.  
(64 m)



36-59-85-112 ft.  
(11-18-26-34 m)



116,800 lbs.  
(53,000 kg)



100%  
25.6 ft. Spread



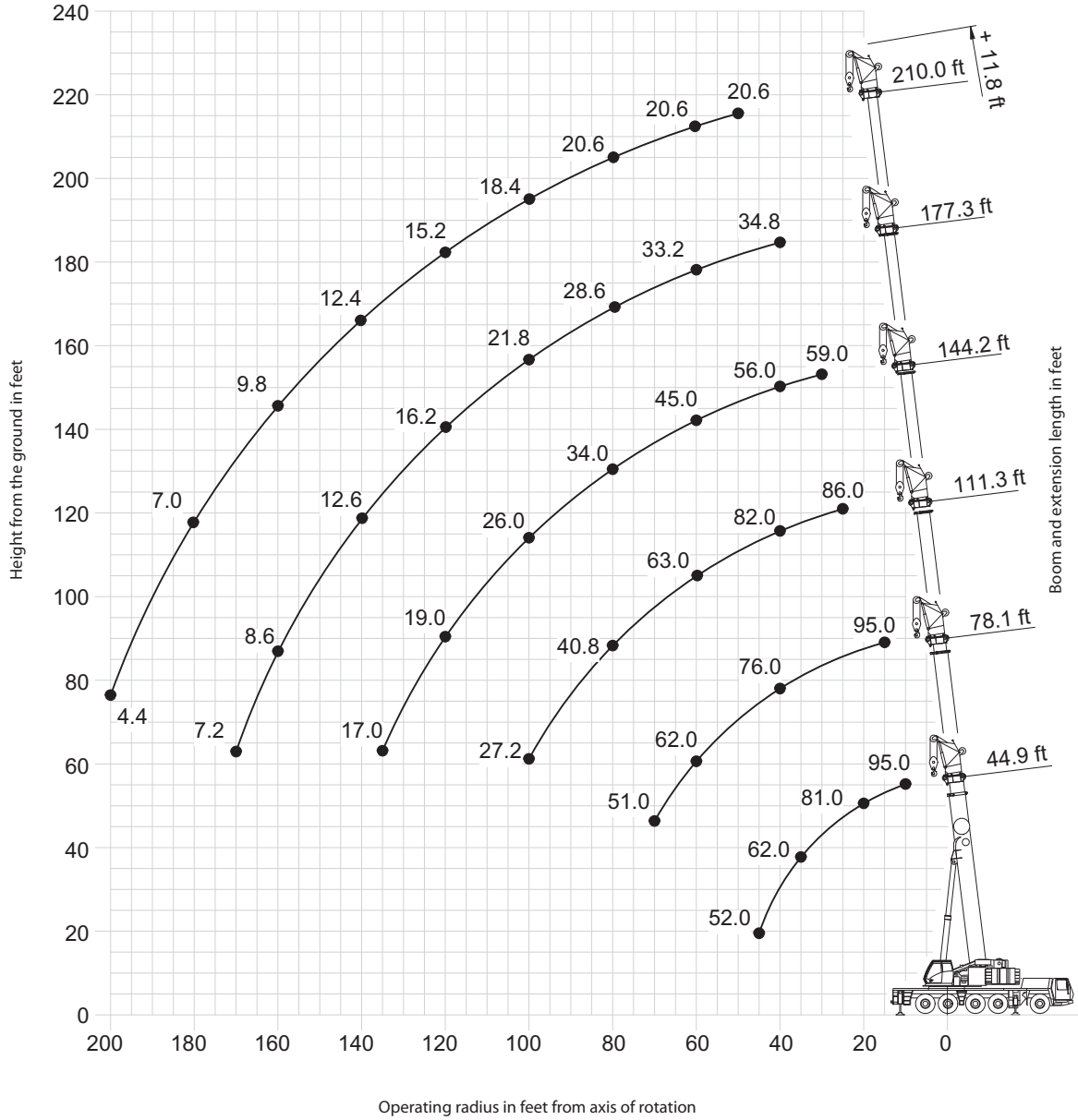
360°

		Pounds (thousands)											
Feet	0°	210' + 36'			210' + 59'			210' + 85'			210' + 85'		
		0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
40.0	14.8												
45.0	14.8				9.8								
50.0	14.8	14.8			9.8			7.6					
55.0	14.8	14.8			9.8			7.6			5.2		
60.0	14.8	14.8	14.8		9.8	9.8		7.6			5.2		
65.0	14.8	14.8	14.8		9.8	9.8		7.6			5.2		
70.0	14.8	14.8	14.8		9.8	9.8	9.6	7.6	7.2		5.2		
75.0	14.8	14.8	14.8		9.8	9.8	9.6	7.6	7.2		5.2	5.6	
80.0	14.8	14.8	14.8		9.8	9.8	9.4	7.6	7.2	6.2	5.2	5.6	
85.0	14.8	14.8	14.8		9.8	9.8	9.4	7.6	7.2	6.2	5.2	5.6	
90.0	14.8	14.8	14.8		9.8	9.6	9.4	7.6	7.2	6.2	5.2	5.6	3.6
95.0	14.8	14.8	14.8		9.8	9.6	9.4	7.6	7.2	6.2	5.2	5.6	3.6
100.0	14.8	14.8	14.8		9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.6	3.6
105.0	14.8	14.8	14.8		9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.6	3.6
110.0	14.8	14.4	14.2		9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.6	3.4
115.0	14.6	14.0	13.8		9.8	9.6	9.2	7.6	7.2	6.2	5.2	5.4	3.4
120.0	14.0	13.6	13.4		9.8	9.4	9.2	7.6	7.2	6.2	5.2	5.4	3.4
125.0	13.2	13.2	13.0		9.8	9.4	9.0	7.6	7.2	6.2	5.2	5.4	3.4
130.0	12.6	12.6	12.6		9.8	9.4	9.0	7.6	7.2	6.2	5.2	5.4	3.4
135.0	12.0	12.2	12.2		9.8	9.4	9.0	7.6	7.2	6.2	5.2	5.4	3.4
140.0	11.6	11.8	11.8		9.8	9.2	8.8	7.6	7.2	6.2	5.2	5.4	3.4
145.0	11.0	11.2	11.4		9.8	9.2	8.8	7.6	7.2	6.2	5.2	5.4	3.4
150.0	10.6	10.8	11.0		9.6	9.2	8.8	7.6	7.2	6.2	5.2	5.4	3.4
155.0	10.0	10.2	10.6		9.4	9.0	8.8	7.6	7.2	6.2	5.2	5.4	3.4
160.0	9.6	9.8	10.0		9.0	8.8	8.8	7.4	7.2	6.2	5.2	5.4	3.4
165.0	9.2	9.4	9.6		8.8	8.6	8.6	7.2	7.0	6.2	5.2	5.4	3.4
170.0	8.8	9.0	9.2		8.4	8.4	8.4	7.0	6.8	6.2	5.2	5.4	3.4
175.0	8.2	8.6	8.8		8.0	8.2	8.4	6.6	6.6	6.2	5.2	5.4	3.4
180.0	7.8	8.2	8.4		7.6	8.0	8.2	6.4	6.4	6.2	5.0	5.2	3.4
185.0	7.0	7.4			7.4	7.6	8.0	6.2	6.2	6.2	5.0	5.0	3.4
190.0	6.4	6.8			7.0	7.4	7.6	6.0	6.0	6.2	4.8	4.8	3.4
195.0	5.8	6.2			6.6	7.0	7.4	5.8	5.8	6.0	4.6	4.6	3.4
200.0	5.2	5.6			6.0	6.8	7.0	5.6	5.8	5.8	4.4	4.4	3.4
205.0	4.6	5.0			5.6	6.2		5.4	5.6	5.8	4.2	4.4	3.4
210.0	4.2	4.4			5.0	5.6		5.0	5.4	5.6	4.0	4.2	3.4
215.0	3.6	3.8			4.4	5.0		4.6	5.2	5.4	4.0	4.0	3.4
220.0	3.2	3.2			4.0	4.6		4.0	4.8	5.0	3.8	3.8	3.4
225.0	2.8				3.6	4.0		3.6	4.2		3.6	3.8	3.4
230.0					3.2	3.6		3.2	3.8		3.0	3.6	3.4
235.0					2.8	3.0		2.8	3.2		2.6	3.4	3.4
240.0					2.4	2.6		2.4	2.8		2.2	2.8	3.2
245.0					2.0			2.0	2.4		1.8	2.4	
250.0									2.0			2.0	

## working range

heavy duty jib

**45 - 210 ft (13.7 - 64 m) main boom with 11.8 ft (3.6 m) heavy duty jib**



Hook heights shown in the working range diagram do not consider loaded boom deflection.

# STERLING CRANE

## load charts Integrated Heavy Duty Jib



45-210 ft.  
(13.7-64 m)



11.8 ft.  
(3.6 m)



116,800 lbs.  
(53,000 kg)



100%  
25.6 ft. Spread



360°

### Intermediate Angle

Feet	Pounds (thousands)																	
	44.9' + 11.8'			78.1' + 11.8'			111.3' + 11.8'			144.2' + 11.8'			177.3' + 11.8'			210.0' + 11.8'		
	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°
10.0	95.0	95.0	88.0															
15.0	93.0	88.0	85.0	95.0														
20.0	81.0	79.0	80.0	95.0	95.0	87.0												
25.0	72.0	73.0	75.0	95.0	89.0	85.0	86.0	70.0										
30.0	64.0	67.0	71.0	86.0	83.0	82.0	86.0	70.0	67.0	59.0								
35.0	59.0	62.0		79.0	78.0	79.0	84.0	70.0	67.0	58.0	46.0	46.0						
40.0	55.0	61.0		74.0	74.0	76.0	82.0	70.0	67.0	56.0	46.0	46.0	34.8	28.8				
45.0		52.0		69.0	70.0	73.0	79.0	70.0	67.0	54.0	46.0	46.0	34.8	28.8	28.8			
50.0				64.0	67.0	71.0	73.0	70.0	67.0	51.0	46.0	46.0	34.6	28.8	28.8	20.6	18.6	18.2
55.0				61.0	64.0	69.0	68.0	68.0	67.0	48.0	46.0	46.0	34.0	28.8	28.8	20.6	18.6	18.2
60.0				57.0	62.0		62.0	62.0	63.0	45.0	45.0	45.0	33.2	28.8	28.8	20.6	18.6	18.2
65.0				55.0	57.0		56.0	56.0	56.0	41.2	41.5	42.2	31.8	28.8	28.8	20.6	18.6	18.2
70.0				51.0	51.0		50.0	50.0	50.0	38.6	38.6	39.2	30.6	28.8	28.8	20.6	18.6	18.2
75.0							45.0	45.0	46.0	35.8	36.0	36.4	29.2	28.8	28.8	20.6	18.6	18.2
80.0							40.8	40.8	40.8	33.4	33.6	34.0	28.0	27.8	28.6	20.6	18.6	18.2
85.0							36.6	36.6	36.8	31.4	31.4	31.8	26.6	26.6	27.2	20.6	18.6	18.2
90.0							33.0	33.0		29.4	29.4	29.8	25.0	25.0	25.4	20.6	18.6	18.2
95.0							30.0	30.0		27.4	27.6	27.8	23.4	23.4	23.0	19.4	18.6	18.2
100.0							27.2	27.2		25.8	26.0	26.0	21.8	21.8	20.8	18.4	18.2	18.2
105.0										24.4	24.4	24.0	20.0	20.0	19.6	17.4	17.4	17.8
110.0										22.4	22.4	22.0	18.2	18.4	18.4	16.6	16.6	16.8
115.0										20.4	20.4		17.0	17.0	17.2	15.6	15.8	16.0
120.0										18.8	19.0		16.0	16.0	16.2	15.0	15.0	15.2
125.0										18.0	18.4		15.0	15.0	15.2	14.2	14.2	14.4
130.0										17.4	17.8		14.2	14.2	14.4	13.6	13.6	13.8
135.0										17.0	14.0		13.4	13.4		12.8	13.0	13.0
140.0													12.6	12.6		12.2	12.2	12.4
145.0													11.6	11.6		11.6	11.6	11.8
150.0													10.6	10.6		11.0	11.0	11.0
155.0													9.6	9.6		10.4	10.4	10.4
160.0													8.6	8.6		9.8	9.8	
165.0													7.8			9.2	9.2	
170.0													7.2			8.4	8.6	
175.0																7.6	7.8	
180.0																6.8	7.0	
185.0																6.2	6.4	
190.0																5.6	5.8	
195.0																5.0	5.2	
200.0																4.4		



45-210 ft.  
(13.7-64 m)



11.8 ft.  
(3.6 m)



116,800 lbs.  
(53,000 kg)



100%  
25.6 ft. Spread



360°

### Loads for Luffing

Feet	Pounds (thousands)																	
	44.9' + 11.8'		78.1' + 11.8'		111.3' + 11.8'		144.2' + 11.8'		177.3' + 11.8'		210.0' + 11.8'							
	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°						
10.0	74.0	74.0																
15.0	71.0	71.0																
20.0	69.0	69.0	74.0	73.0														
25.0	65.0	67.0	72.0	72.0	67.0													
30.0	61.0	66.0	70.0	70.0	67.0	64.0												
35.0	59.0	66.0	68.0	68.0	67.0	64.0	44.0	43.6										
40.0	57.0	65.0	67.0	67.0	67.0	64.0	44.0	43.6										
45.0			64.0	66.0	67.0	64.0	44.0	43.6										
50.0			62.0	66.0	67.0	64.0	44.0	43.6	26.4	27.4	17.6	17.4						
55.0			60.0	65.0	64.0	64.0	44.0	43.6	26.4	27.4	17.6	17.4						
60.0			59.0		60.0	60.0	42.8	43.2	26.4	27.4	17.6	17.4						
65.0			53.0		53.0	53.0	39.4	40.2	26.4	27.4	17.6	17.4						
70.0			47.0		47.0	47.0	36.8	37.4	26.4	27.4	17.6	17.4						
75.0					41.4	41.6	34.2	34.8	26.4	27.4	17.6	17.4						
80.0					37.0	37.2	32.0	32.2	26.4	27.2	17.6	17.4						
85.0					33.4	33.4	30.0	30.2	25.2	26.0	17.6	17.4						
90.0					30.0		28.0	28.2	23.8	24.2	17.6	17.4						
95.0					27.2		26.2	26.6	22.4	22.0	17.6	17.4						
100.0					24.6		24.6	24.8	20.8	19.8	17.4	17.4						
105.0							22.4	22.4	19.2	18.6	16.6	17.0						
110.0							20.4	20.4	17.4	17.4	15.8	16.0						
115.0							18.8		16.2	16.4	15.0	15.2						
120.0							18.2		15.4	15.4	14.4	14.6						
125.0							17.4		14.4	14.4	13.6	13.8						
130.0							16.6		13.6	13.6	13.0	13.2						
135.0									12.8		12.4	12.4						
140.0									11.6		11.6	11.8						
145.0									10.6		11.0	11.2						
150.0									9.6		10.4	10.6						
155.0									8.6		9.8	10.0						
160.0									7.8		9.4							
165.0									7.0		8.6							
170.0									6.2		7.8							
175.0											7.2							
180.0											6.4							
185.0											5.8							
190.0											5.2							
195.0											4.6							
200.0																		



## specifications

### Superstructure

#### Boom

45 ft. - 210 ft. (13.7 m - 64 m) 6-section, full power MEGAFORM boom with patented TWIN-LOCK™ boom pinning system. Maximum tip height: 220 ft. (67 m).

#### Boom Nose

Seven nylatron sheaves, mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Quick reeve boom nose. Removable auxiliary boom nose with removable pin type rope guard.

#### Boom Elevation

Single lift cylinder with safety valve provides boom angle from -1.5° to +82°.

#### Hydraulically Offsettable Lattice Extension

36 ft – 59 ft (11 m - 18 m) bifold lattice swingaway extension hydraulically offsettable and luffing under load: 5° - 40°. Controlled from the crane cab. Maximum tip height: 279 ft (85 m)

#### \*Offsettable Lattice Extension

36 ft – 59 ft (11 m - 18 m) bifold lattice swingaway extension hydraulically offsettable and luffing under load: 5° - 40°. Controlled from the crane cab. Maximum tip height: 279 ft (85 m)

#### Lattice Inserts

2 x 26 ft (8 m) inserts for use with lattice swingaway extension to increase length to 85 ft (26 m) or 112 ft (34 m). Maximum tip height: 331 ft (101 m)

#### Load Moment & Anti-Two Block System

Load moment and anti-two block system with audio/visual warning and control lever lockout provides electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication and warning of impending two-block condition.

#### Cab

All aluminum constructed cab with acoustical lining, hydraulic tilted to 20°. Includes tinted safety glass, adjustable operator's seat with hydraulic suspension, opening windows at side and rear, hinged windshield with wiper, sun visor and window shade. Other features include hot water heater/defroster, armrest integrated crane controls, and ergonomically arranged instrumentation.

#### Swing

3 planetary gear boxes with fixed displacement axial piston motors. Infinitely variable to 1.3 rpm. Free swing or hydrostatically engaged brake controlled by swing lever. Swing brake selected by foot operated switch.

#### Counterweight

116,800 lb (53 t) consisting of various sections with hydraulic installation/removal system. Controlled from the superstructure cab.

#### Engine

Cummins QSB6, 7, 6-cylinder  
Horsepower: 220 bhp (164 kW) at 2200 rpm  
Torque: 700 ft/lb (949 Nm) at 1500 rpm  
Off-road: EPA/CARB/EUROMOT III  
\*Alternate engine: Mercedes Benz OM 906 LA, 6 cylinder  
Horsepower: 228 bhp (170 kW) at 2200 rpm  
Torque: 597 ft/lb (810 Nm) at 1200 rpm  
Off-road: EPA/CARB/EUROMOR (III)

#### Fuel Tank Capacity

63 gal (240 L)

#### Electrical System

3 phase alternator: 28V/80A  
2 batteries: 12V/170Ah

#### Hydraulic System

2 separate circuits, 1 axial piston variable displacement pump (load sensing) with electronic power limiting control and 1 double gear pump for swing and outrigger functions. Thermostatically controlled oil coolers keep oil at optimum operating temperature. Hydraulic tank capacity: 242 gal (915 L)

#### Hoist

Main and auxiliary hoists are powered by axial piston motor with planetary gear and brake. "Thumb-thumper" hoist drum rotation indicator alerts operator of hoist movement.

	Main	Auxiliary
Rope length:	951 ft (290 m)	951 ft (290 m)
Rope diameter:	22 mm	22 mm
Line speed:	410 ft/min (125m/min)	410 ft/min (125 m/min)
Line pull:	21,020 lb (93.5 kN)	21,020 lb (93.5 kN)

#### \*Optional Equipment

- \*11.8 ft (3.6 m) side-stowed 3-sheave integrated heavy duty jib
- \*Work lights, mounted on boom base section
- \*Radio/CD player for superstructure cab
- \*Stainless steel exhaust system with spark arrestor
- \*Air conditioning
- \*Hook blocks/headache ball
- \*Engine independent diesel cab heater, with engine preheater including 24-hour timer
- \*Engine independent propane gas cab heater
- \*Additional cab mounted work light
- \*Strobe light
- \*Working range limiter
- \*Data logger
- \*Camera system for boom head
- \*Camera system for hoists
- \*EKS5 Light with semi-graphic display

\*Denotes optional equipment

## specifications

### Carrier

#### Chassis

Box type, torsion resistant frame is fabricated from high strength steel.

#### Outrigger System

Four hydraulic single stage outrigger beams with vertical cylinders and outrigger pads, 23.6" (600 mm) square. Outriggers can be set in 4 positions:

Full	- 25.6' (7.8 m)
Partial	- 19.6' (6.0 m)
	- 14.3' (4.4 m)
Retracted	- 9.1' (2.8 m)

Independent horizontal and vertical movement controlled from each side of carrier. Electronic crane level indicators.

#### Transmission

Allison 4000 SP. 6 speeds forward, 1 reverse  
2 speed transfer case

#### Drive/Steer

10X6X10

#### Axles

1st axle line – steer

2nd axle line – steer (optional drive)

3rd axle line – drive/steer (permanent drive with 10x6, disconnects for highway with 10x8)

4th axle line – drive/steer (connects for all wheel steer)

5th axle line – drive/steer

Drive axles with planetary hub reduction and center mounted differential-gearing. Inter-axle and cross axle differential locks.

#### Suspension

Grove exclusive MEGATRAK suspension. Independent hydro-pneumatic system acting on all wheels with hydraulic lockout. Suspension can be raised 6.3" (160 mm) or lowered 4.7" (120 mm) both longitudinally and transversely. Features an automatic leveling system for highway travel.

#### Tires

10 tires, 16.00R25 (Vehicle width - 10.2' [3.1 m])

#### Steering

Dual circuit, hydraulic power assisted steering system. Transfer case mounted, ground driven emergency steering pump. Axles 1, 2, 3 and 5 steer on highway. Separate steering of the 4th and 5th axles for all wheel and crab steering, controlled by an electronic rocker switch.

#### Engine

Cummins QSX15, 6-cylinder

Horsepower: 535 bhp (399 kW) at 2100 rpm

Torque: 1873 ft/lb (2539 Nm) at 1400 rpm

Off-road: EPA/CARB/EUROMOT III

\*Alternate engine: Mercedes Benz OM 502 LA, 8 cylinder

Horsepower: 563 bhp (420 kW) at 1800 rpm

Torque: 1991 ft/lb (2700 Nm) at 1200 rpm

Off-road: EPA/CARB/EUROMOR (III)

#### Fuel Tank Capacity

95 gal (360 L)

#### Brakes

Service brakes: pneumatic dual circuit acting on all wheels.

Parking brake: pneumatically operated spring loaded brake acting on axle lines 2,3,4 and 5.

Air dryer.

#### Cab

Two-man aluminum construction with the following features: safety glass, driver and passenger seats with suspension, engine-dependent hot water heater, heated rear view mirrors, complete instrumentation and driving controls.

#### Electrical System

24V system with three phase alternator, 28V/100A  
2 batteries, 12V/170 Ah

#### Maximum Speed

53 mph (85 kph)

#### Gradeability (Theoretical)

50% - 14.00 tires

45% - 16.00/20.5 tires

#### Miscellaneous Standard Equipment

Work light; tool kit; fire extinguishers; auxiliary boom nose; radio/CD player in carrier cab, heated rear view mirrors, wind speed indicator.

#### Optional Equipment

\*Stainless steel exhaust system with spark arrestor

\*Air conditioning

\*14.00R25 tires (vehicle width 9.8 ft [3.0 m])

\*20.5R25 tires (vehicle width 10.2 ft [3.1 m])

\*10X8X10 drive/steer

\*Transmission retarder (in lieu of engine compression brake)

\*Engine independent diesel cab heater, with engine pre-heater, including 24 hour timer

\*Engine independent propane gas cab heater

\*Engine shutdown valve (for both engines)

\*Reversing camera system

\*Wireless remote control

\*Rear mounted stowage box

\*Outrigger pad load indicator

\*Trailer hitch

\*Steel outrigger pads

\*Strobe light

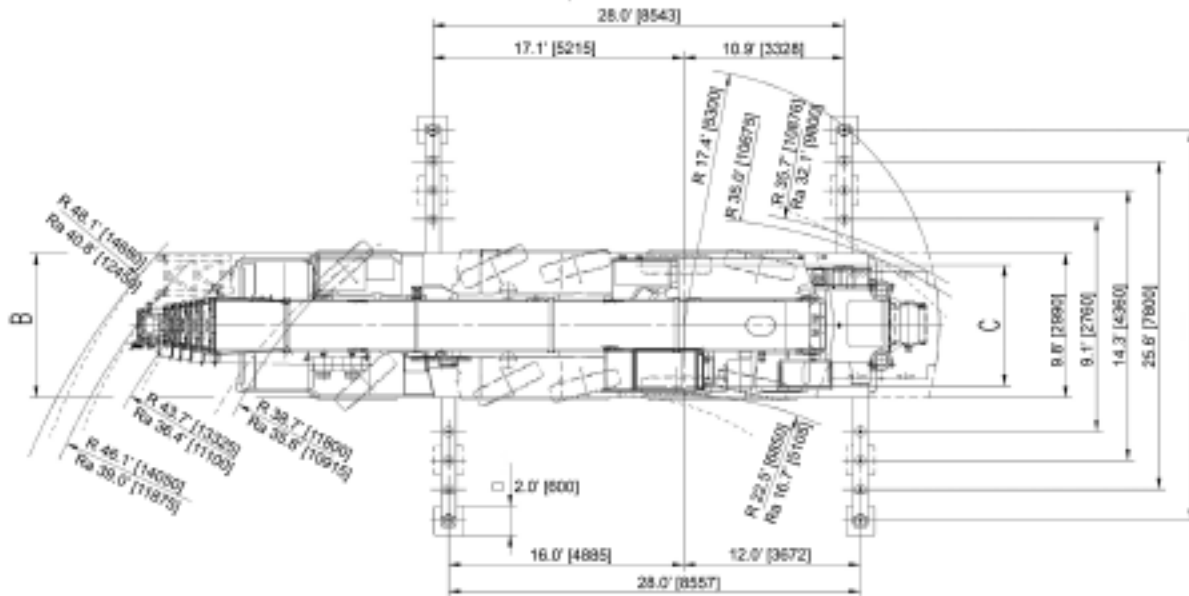
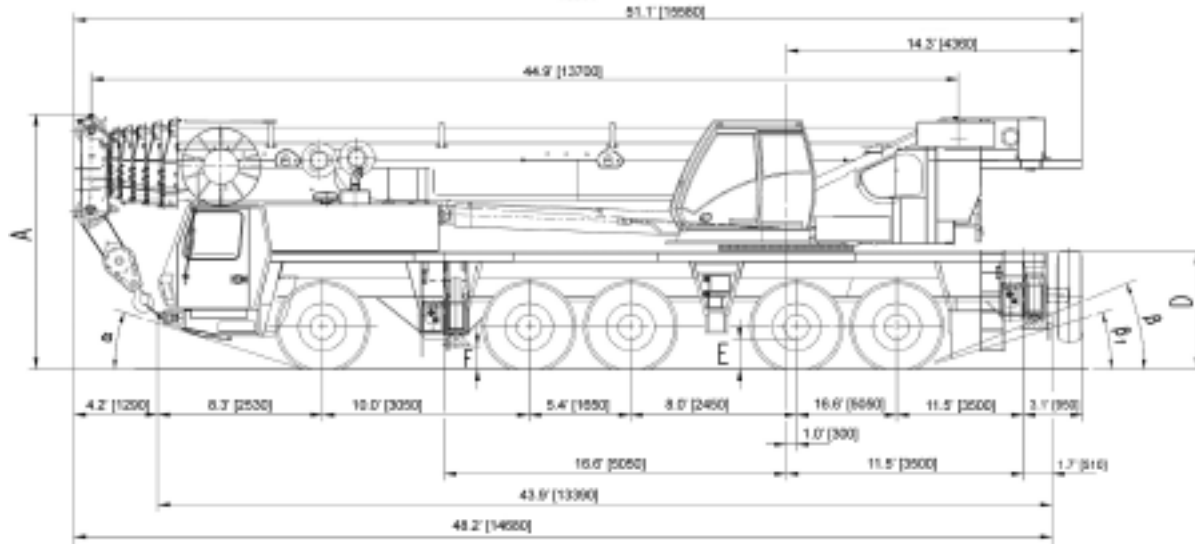
\*Work lights for outrigger


\*Spare tire

\*Denotes optional equipment

# STERLING CRANE

## dimensions

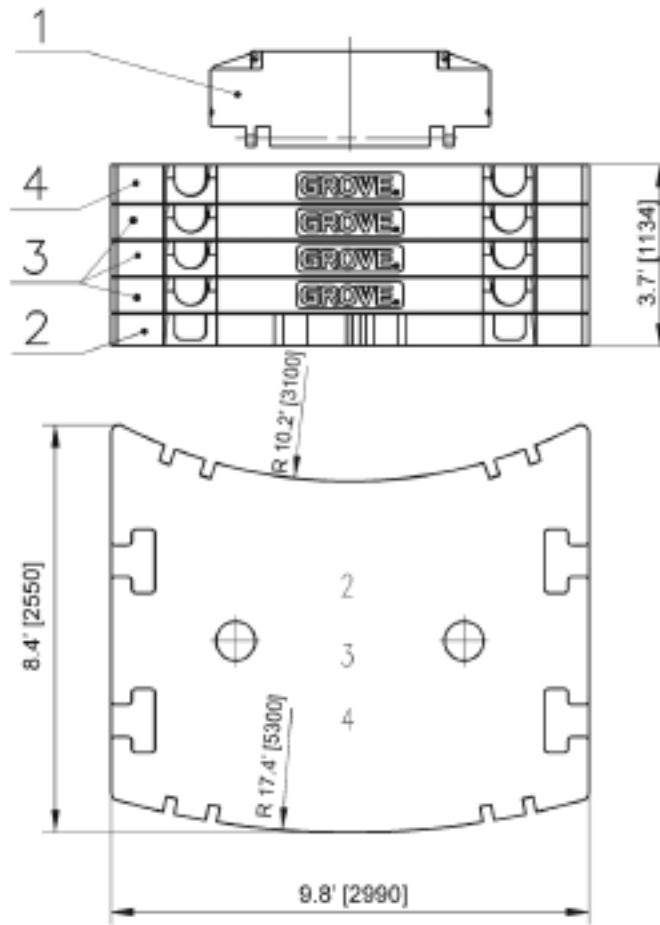


	A	A 5.4 in (130 mm)*	B	C	D	E	F	α	β	β1
14.00 R25	13.0 (3950)	12.5 (3820)	9.8 (3000)	8.4 (2548)	5.8 (1760)	1.3 (400)	.08 (244)	18°	23°	17°
16.00 R25	13.1 (4000)	12.7 (3870)	9.8 (3000)	8.2 (2486)	5.9 (1810)	1.5 (450)	1.0 (295)	20°	25°	19°
20.5 R25	13.1 (4000)	12.7 (3870)	10.2 (3110)	8.2 (2507)	5.9 (1810)	1.5 (450)	1.0 (295)	20°	25°	19°

Ra = Radius all wheels steered  
\*Lowered

# STERLING CRANE

## counterweight



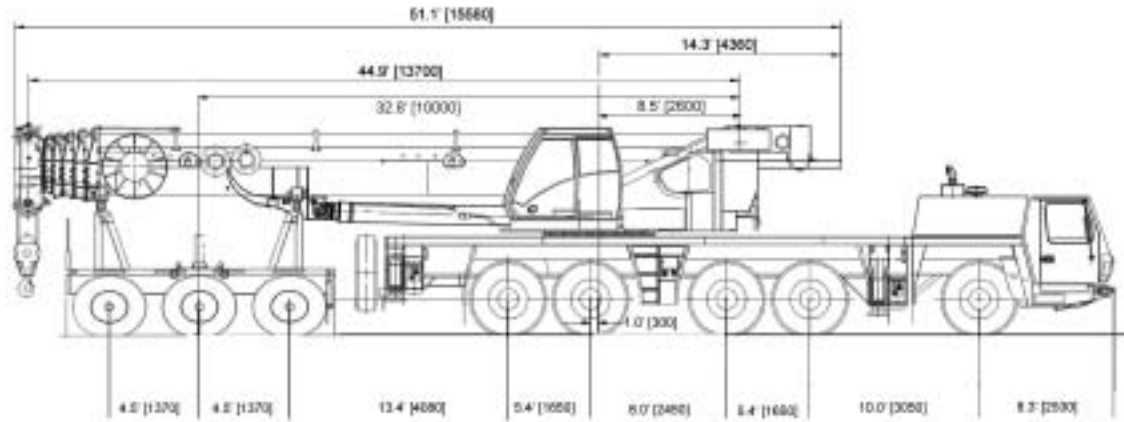
- 1. 4,409 lb. (2 000 kg.) Bolted (Auxiliary Hoist or IPO)
- 2. 24,251 lb. (11 000 kg.) Baseplate
- 3. 22 046 lb. (10 000 kg.) Stacking
- 4. 22,046 lb. (10 000 kg.) Stacking

	1	2	3	4
Counterweight Configuration lb.(kg.)				
4,409 (2 000)	●			
28,660 (13 000)	●	●		
50,706 (23 000)	●	●	●	
72,753 (33 000)	●	●	2●	
94,799 (43 000)	●	●	3●	
116,845 (53 000)	●	●	3●	●

# STERLING CRANE

## weight proposal

### Trailing Boom (Mercedes)



Dolly  
42,396 lb.  
(19 231 kg)

2 Rear Axles  
44,455 lb.  
(20 165 kg)

3 Front Axles  
53,347 lb.  
(24 198 kg)

### Unit Configuration:

45' – 210' boom

36 – 59 ft. hydraulic luffing swingaway

Outrigger pads stowed on unit

Additional oil cooler

10 X 8 X 10 drive/steer

20.5 tires

Main and auxiliary hoists with cable

3 axle boom dolly (5,700 lb. / 3 050 kg)

### Boom over front (Mercedes)

Basic Weights - lbs (kg)	Axles 1 - 3		Axles 4 & 5		Total	
Mercedes power, 16.00R25 tires, 10x6x10 drive/steer, 2nd oil cooler, outrigger pads, auxiliary hoist, driver and tanks filled	71,910	(32 618)	55,844	(25 330)	127,754	(57 948)
<b>Additions:</b>						
10x8x10 drive/steer	744	(337)	83	(38)	827	(375)
Electric driveline retarder	115	(52)	-26	(-12)	88	(40)
Spare wheel 14.00 R25 XGC steel rim with stowage	-320	(-145)	891	(404)	571	(259)
Spare wheel 16.00 R25 XGC steel rim with stowage	-395	(-179)	1,098	(498)	703	(319)
Spare wheel 20.5 R25 XGC steel rim with stowage	-448	(-203)	1,246	(565)	798	(362)
Brackets for hydraulic swingaway	207	(94)	-28	(-13)	179	(81)
Hose reel + parts for hydraulic swingaway	97	(44)	366	(166)	463	(210)
36 ft. - 59 ft. (11-18m) hydraulic swingaway	4,315	(1 957)	-1008	(-457)	3,307	(1 500)
Auxiliary boom nose	334	(152)	-180	(-82)	154	(70)
5,500 lb. (11,000 kg) section 2 stowed on carrier	23,394	(10 611)	746	(339)	24,141	(10 950)
<b>Substitutions:</b>						
14.00R25 tires	-794	(-360)	-529	(-240)	-1,323	(-600)
20.5R25 tires	569	(258)	379	(172)	948	(430)
<b>Removals:</b>						
Boom assembly w/o lift cylinder	-38,863	(-17 825)	-2,121	(-962)	-40,984	(-18 590)
Front outriggers	-4,545	(-2 062)	577	(262)	-3,968	(-1 800)
Rear outriggers	2,078	(943)	-6,796	(-3 083)	-4,718	(-2 140)
Front and rear outrigger floats	-155	(-70)	-286	(-130)	-441	(-200)