



ALL TERRAIN CRANE 300 TONS

GROVE GMK6300B

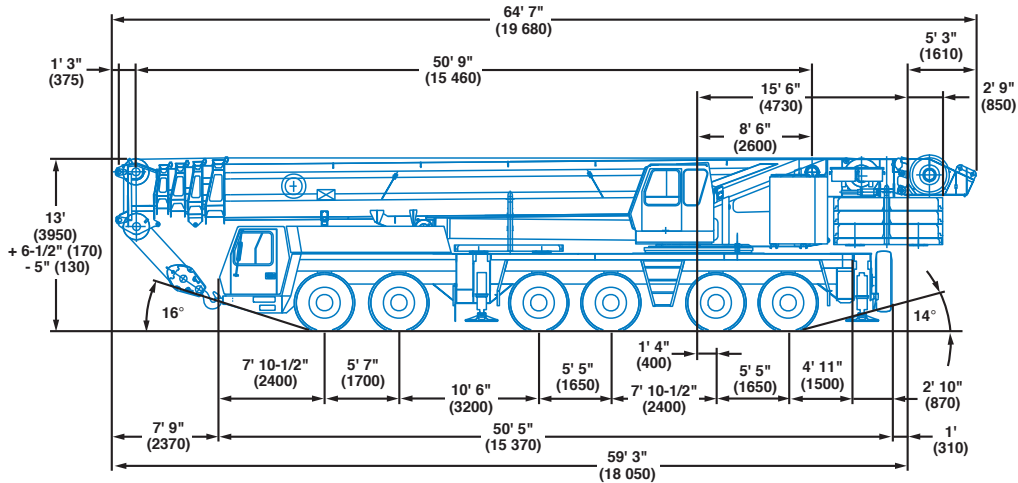
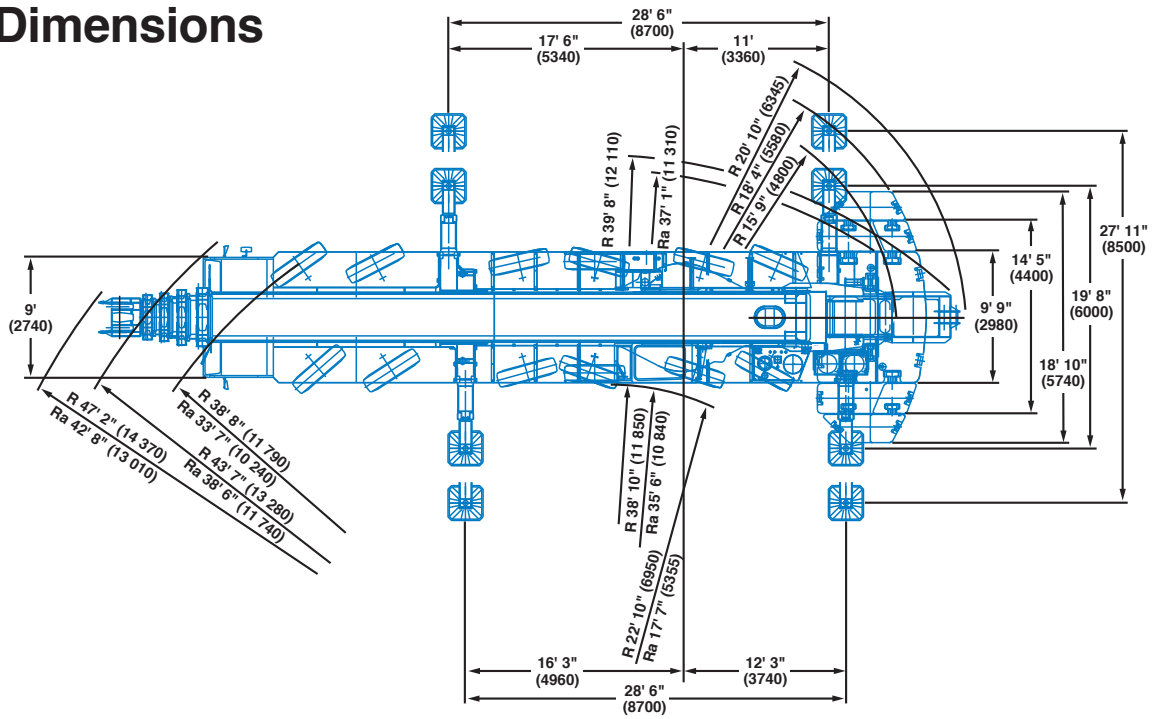
BOOM LENGTHS:
51 TO 197 FT

JIB LENGTHS:
36 TO 200 FT

JIB OFFSETS:
LUFFING



Dimensions



Note: () Reference dimensions in mm

BASIC WEIGHTS (LBS.)	Axles 1 & 2	Axles 3 - 6	Total
With Mercedes Power	50,278	107,369	157,648
With Cummins Power	50,640	107,713	158,353
Additions:			
Outrigger Pads	-	772	772
Removable rear outrigger box option	-(1,197)	3,402	2,205
Auxiliary Hoist	-(5,362)	11,446	6,081
Removal:			
Front Outrigger Beams & Jacks	-(3,377)	-(1,980)	-(5,357)
Rear Outrigger Beams & Jacks	3,732	-(9,652)	-(5,920)
Outrigger Box (must add weight above for option)	6,457	-(16,819)	-(10,362)
Substitute 14.00 tires for standard 20.5	-(900)	-(1,800)	-(2,700)
Boom Assembly (minus lift cylinder)*	-(32,245)	-(23,995)	-(56,240)
Telescope Sections 1-4*	-(23,034)	-(13,783)	-(36,817)
Lift Cylinder*	-(2,121)	-(3,258)	-(5,379)



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Superstructure specifications

Boom

51 ft. - 197 ft. (15.5 m - 60 m) five section, full power boom with patented "twin-lock" boom pinning system. Maximum tip height: 207 ft. (63 m).

Boom Elevation

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

Lattice Jib

Luffing Jib is a lattice design with lengths of 69 ft. - 200 ft. (21 m - 61 m) in sections of 26 ft. (8 m). The luffing jib converts to a fixed offset lattice jib using an offset angle adapter and provides lengths of 62 ft. - 167 ft. (19 m - 51 m) offsettable at 3° and 25°.

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 construction cab is tiltable (approximately 20°) and includes safety glass and adjustable operator's seat with hydraulic suspension. Other features include engine dependent hot water heater, armrest integrated crane controls, and ergonomically arranged instrumentation.

Swing

3 axial piston fixed displacement motors provide swing speed of 0 - 1.6 RPM thru planetary gear box. Also provided is a spring applied, hydraulically released automatic swing brake with foot-operated release for free swing.

Counterweight

220,458 lbs. (100 000 kg) consisting of various sections with hydraulic installation/removal system (see counterweight configuration on page 16).

Engine

Mercedes-Benz OM906LA, diesel, 6 cylinders, water cooled, turbocharged, 258 HP (190 kW) at 1800 rpm. Max. torque: 803 ft./lbs. (1100 Nm) at 1300 rpm. Engine emission: EURO II/EUROMOT/EPA/CARB (non road).

*Optional engine: Cummins 6 CTA 8.3-260, diesel, 6 cylinders 260 HP (194 kW) at 1800 rpm.

Fuel tank capacity: 87 gal. (330 L).

Hydraulic system

4 axial piston variable displacement pumps provide four separate circuits for craning functions. Standard thermostatically controlled oil cooler keeps oil at optimum operating temperature.

Tank capacity: 322 gal. (1220 L)

Control system

Full electronic control of all crane movements is accomplished using electrical control levers with automatic reset to zero. Controls are integrated with the LMI and engine management system by a CAN-BUS.

Hoist

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

	<u>Main</u>	<u>Auxiliary</u>
Line length:	984 ft. (300 m)	1,378 ft. (420 m)
Rope diameter:	24 mm	24 mm
Line speed:	460 ft./min.	426 ft./min.
Line pull:	24,700 lbs. (112 kN)	24,700 lbs. (112 kN)

Electrical system

24 V system with three-phase alternator 28 V/80 A, 2 batteries 12 V/170 Ah.

*Optional equipment

- *Engine-independent hot water heater, with engine pre-heater
- *Second spotlight
- *Stereo/cassette player
- *Air Conditioning



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Carrier specifications

Chassis

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

Outrigger System

Hydraulic two-stage outrigger beams are extended by a single hydraulic cylinder and two cables. Outriggers can adjust to two positions:

Fully extended (100%) - 27' 11" (8.5 m)

Partially extended (50%) - 19' 8" (6 m)

Four 29.5 in. x 32 in. (750 mm x 810 mm), self stowing, steel outrigger pads provide rigid lifting base. Outrigger controls are located on both sides of the carrier. An electronic level indicator is located next to each outrigger control bos. In-cab and outrigger control station outrigger pressure readouts are also available.

Engine

Mercedes-Benz OM502LA, diesel, 8 cylinders, water cooled, turbo charged and aftercooled, 563 HP (420 kW) at 1800 rpm. Max. torque: 1,971 ft./lbs. (2700 Nm) at 1080 rpm.

Engine emission: EURO II/EUROMOT/EPA/CARB (non road).

*Optional engine: Cummins N525 E20 (EUROMOT/EPA/CARB - non road), diesel, 6 cylinders 533 HP (392 kW) at 1800 rpm.

Fuel Tank capacity: 132 gal. (500 L).

Transmission

Allison automatic CLT 755, 5 forward and 1 reverse speed. Transfer case with 2 speeds and inter-axle differential lock.

Axles

6 axles. 1, 2, 4 and 5 are drive/steer. Axles 3 and 6 are steer only. (12 x 8 x 12).

Suspension

GMK6300B features the Grove exclusive MEGATRAK** suspension. This revolutionary design features an independent hydroneumatic system with hydraulic lockout acting on all wheels. The suspension can be raised 6-1/2" (170 mm) or lowered 5" (130 mm) both longitudinally and transversely and features an automatic leveling system for on-highway travel.

Tires

12 tires, 20.5 R25.

Steering

Dual circuit steering system is hydraulic power assisted with a transfer case mounted, ground driven, emergency steering pump. Axles 1, 2, 3, 5 and 6 steer on highway. Separate steering of the 4th, 5th and 6th axle for all wheel steer and crab-steer is controlled by an electric rocker switch.

Brakes

A dual circuit air system operates on all wheels with a spring-applied, air released parking brake acting on axles 2, 4, 5 and 6. An air dryer is fitted to remove moisture from the air system.

Auxiliary exhaust brake (Cummins) or transmission retarder (Mercedes) is standard.

Cab

Two-man, aluminum construction driver's cab includes the following features: safety glass; driver and passenger seats with hydraulic suspension, engine-dependent hot water heater, complete instrumentation and driving controls.

Electrical system

24 V system with three-phase alternator 28 V/80 A, 2 batteries 12 V/170 Ah.

*Optional equipment

- *Electric driveline retarder
- *12 tires, 16.00 R25 (vehicle width 9 ft. 10 in. [3 m])
- *14.00 R25 tires (vehicle width 9 ft. 9 in. [2.98 m])
- *Folding bunk bed in carrier cab
- *Engine-independent hot water heater, with engine pre-heater
- *Third seat
- *Trailing boom "boost" weight transfer kit
- *Air conditioning

*Denotes optional equipment



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51 - 197 ft.
(15.5 - 60 m)



220,458 lbs.
(100 000 kg)



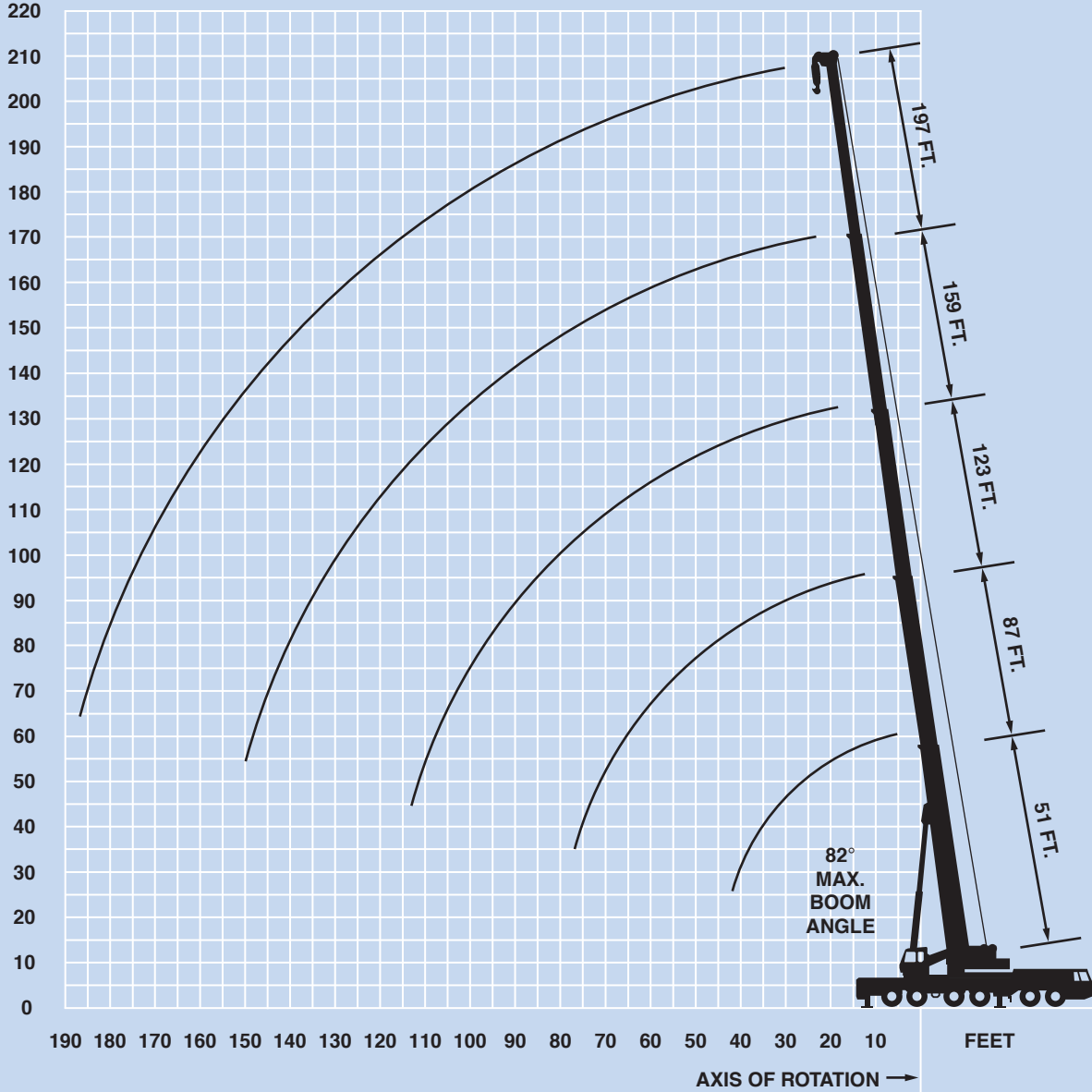
100%




360°


Working Range


FEET




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 51 - 197 ft.
 (15.5 - 60.0 m)


 220,458 lbs.
 (100 000 kg)


 100%
 28' 6" Spread


 360°


Feet	51**	51	72	87	93	108	114	136	160	181	197
*9	600.0										
10		470.0	388.0	290.0							
15		372.0	370.0	282.0	252.0	204.0					
20		306.0	302.0	258.0	224.0	201.0	177.0	140.0			
25		258.0	254.0	230.0	200.0	189.0	160.0	134.0			
30		222.0	222.0	203.0	178.0	173.0	144.0	123.0	95.0	73.0	59.0
35		188.0	188.0	181.0	160.0	156.0	130.0	113.0	95.0	73.0	59.0
40			162.0	157.0	145.0	141.0	118.0	104.0	94.0	73.0	59.0
45			142.0	137.0	132.0	128.0	107.0	95.0	90.0	73.0	59.0
50			126.0	123.0	122.0	117.0	99.0	88.0	85.0	73.0	59.0
55			112.0	112.0	110.0	107.0	91.0	81.0	79.0	71.0	59.0
60				101.0	99.0	98.0	84.0	74.0	74.0	68.0	59.0
65				91.0	89.0	88.0	78.0	70.0	69.0	64.0	58.0
70				82.0	80.0	79.0	73.0	65.0	65.0	60.0	55.0
75				46.0	73.0	71.0	68.0	61.0	61.0	57.0	52.0
80						65.0	64.0	57.0	57.0	53.0	50.0
85						59.0	60.0	53.0	53.0	50.0	47.0
90						54.0	56.0	50.0	50.0	47.0	45.0
95						39.4	53.0	47.0	47.0	45.0	43.0
100								44.0	44.0	42.2	40.8
105								42.6	42.0	40.2	38.8
110								40.6	39.8	38.2	37.0
115								38.6	37.6	36.0	35.0
120								36.6	35.8	34.4	33.4
125									34.0	32.6	31.8
130									32.0	30.8	30.0
135									29.8	29.2	28.4
140									23.6	27.4	26.8
145									22.2	25.6	25.2
150									19.4	24.2	23.8
155										23.2	22.8
160										22.4	22.0
165										18.0	21.0
170										15.6	20.2
175											19.2

*Lifting capacities greater than 430,000 lbs. (195 050 kg) require special equipment. **Over rear only, 28' 6" x 9' 4" (100% Front, 0% Rear) outrigger base.

 51 - 197 ft.
 (15.5 - 60.0 m)

 220,458 lbs.
 (100 000 kg)





 50%
 19' 8" Spread

 360°

Feet	50.72	71.78	71.95	72.05	72.21	86.51	87.01	87.5	87.99
10	526.0	242.0	133.0	189.0	388.0	290.0	206.0	146.0	
15	400.0	242.0	133.0	189.0	382.0	282.0	206.0	146.0	121.0
20	332.0	242.0	133.0	189.0	316.0	258.0	206.0	146.0	121.0
25	268.0	242.0	133.0	189.0	264.0	230.0	205.0	138.0	107.0
30	222.0	222.0	127.0	178.0	218.0	203.0	181.0	122.0	95.0
35	188.0	188.0	115.0	159.0	184.0	181.0	162.0	109.0	85.0
40		162.0	105.0	144.0	159.0	157.0	147.0	99.0	78.0
45		142.0	97.0	130.0	138.0	137.0	133.0	90.0	71.0
50		126.0	90.0	120.0	122.0	121.0	123.0	83.0	65.0
55		112.0	84.0	110.0	109.0	107.0	112.0	76.0	61.0
60						96.0	101.0	70.0	56.0
65						86.0	91.0	66.0	53.0
70						77.0	82.0	61.0	49.0
75									46.0



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 51 - 197 ft.
 (15.5 - 60.0 m)
  110,229 lbs.
 (50 000 kg)
  100%
  360°

 28' 6" Spread

Feet	Pounds									
	51	72	87	93	108	114	136	160	181	197
10	448.0	388.0	290.0							
15	356.0	352.0	282.0	252.0	204.0					
20	280.0	278.0	258.0	224.0	201.0	177.0	140.0			
25	224.0	224.0	219.0	200.0	189.0	160.0	134.0			
30	183.0	183.0	181.0	178.0	173.0	144.0	123.0	95.0	73.0	59.0
35	150.0	154.0	150.0	148.0	147.0	130.0	113.0	95.0	73.0	59.0
40		130.0	126.0	124.0	122.0	118.0	104.0	94.0	73.0	59.0
45		112.0	108.0	110.0	103.0	107.0	95.0	90.0	73.0	59.0
50		94.0	90.0	94.0	94.0	92.0	88.0	85.0	73.0	59.0
55		83.0	77.0	81.0	80.0	78.0	81.0	74.0	71.0	59.0
60			70.0	70.0	69.0	71.0	71.0	65.0	66.0	59.0
65			62.0	61.0	61.0	65.0	62.0	58.0	59.0	58.0
70			55.0	56.0	53.0	58.0	55.0	52.0	53.0	53.0
75			46.0	52.0	49.0	51.0	49.0	47.0	48.0	48.0
80					46.0	46.0	43.6	45.0	45.0	43.8
85					42.4	41.4	38.8	41.8	41.6	39.8
90					38.2	37.4	34.8	39.0	37.6	36.0
95					34.6	33.6	31.2	35.4	34.0	32.4
100							28.0	32.2	30.8	29.2
105							25.2	29.2	27.8	26.4
110							22.6	26.6	25.4	23.8
115							20.2	24.4	23.0	21.4
120							18.0	22.2	20.8	19.4
125								20.2	19.0	17.4
130								18.6	17.2	15.6
135								16.8	15.6	14.0
140								15.4	14.0	12.4
145								13.8	12.6	11.0
150								12.6	11.4	9.8
155									10.0	8.6
160									9.0	7.4
165									7.8	6.4
170									6.8	5.4
175										4.6

 51 - 197 ft.
 (15.5 - 60.0 m)
  17,637 lbs.
 (8 000 kg)
  100%
  360°

 28' 6" Spread

Feet	Pounds									
	51	72	87	93	108	114	136	160	181	197
10	432.0	388.0	290.0							
15	316.0	310.0	278.0	252.0	204.0					
20	224.0	198.0	180.0	180.0	165.0	156.0	140.0			
25	157.0	144.0	136.0	130.0	119.0	124.0	108.0			
30	109.0	111.0	100.0	104.0	98.0	94.0	82.0	82.0	69.0	59.0
35	79.0	85.0	84.0	81.0	77.0	74.0	65.0	66.0	59.0	54.0
40		66.0	67.0	65.0	62.0	59.0	51.0	54.0	48.0	43.4
45		52.0	55.0	53.0	51.0	48.0	41.0	43.8	39.0	35.0
50		41.6	44.0	43.6	41.6	39.4	33.0	36.4	32.0	28.6
55		32.8	35.8	35.4	34.4	32.4	26.6	30.2	26.4	23.2
60			29.2	28.8	28.8	26.8	21.4	25.4	21.8	18.8
65			23.8	23.4	23.6	22.2	17.2	21.2	18.0	15.2
70			19.4	19.2	19.2	18.2	13.6	17.8	14.6	12.0
75			15.8	15.6	15.6	14.6	10.6	14.8	11.8	9.4
80					12.6	11.6	8.0	12.2	9.4	7.0
85					10.0	9.0	5.6	9.8	7.2	4.8
90					7.8	6.8	3.6	7.8	5.4	
95					5.8	5.0		6.0	3.6	
100								4.6		

 51 - 197 ft.
 (15.5 - 60.0 m)
  0 lbs.
 (0 kg)
  100%
  360°

 28' 6" Spread

Feet	Pounds					
	51	72	87	93	108	114
10	428.0	388.0	290.0			
15	298.0	230.0	197.0			
20	172.0	149.0	134.0	189.0	156.0	115.0
25	114.0	107.0	100.0	96.0	88.0	83.0
30	79.0	77.0	74.0	71.0	65.0	61.0
35	57.0	57.0	56.0	54.0	50.0	46.0
40		43.6	43.2	41.4	38.4	35.8
45		33.8	34.0	32.6	30.2	28.0
50		26.4	27.0	25.8	24.0	21.8
55		20.2	21.6	20.6	19.0	17.0
60			17.4	16.2	15.0	13.2
65			13.8	12.8	11.6	9.8
70			10.4	9.8	8.8	7.2
75			7.6	7.2	6.4	4.8
80					4.2	



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51 - 197 ft.
(15.5 - 60 m)



62 - 167 ft.
(19.0 - 51.0 m)



220,458 lbs.
(100 000 kg)



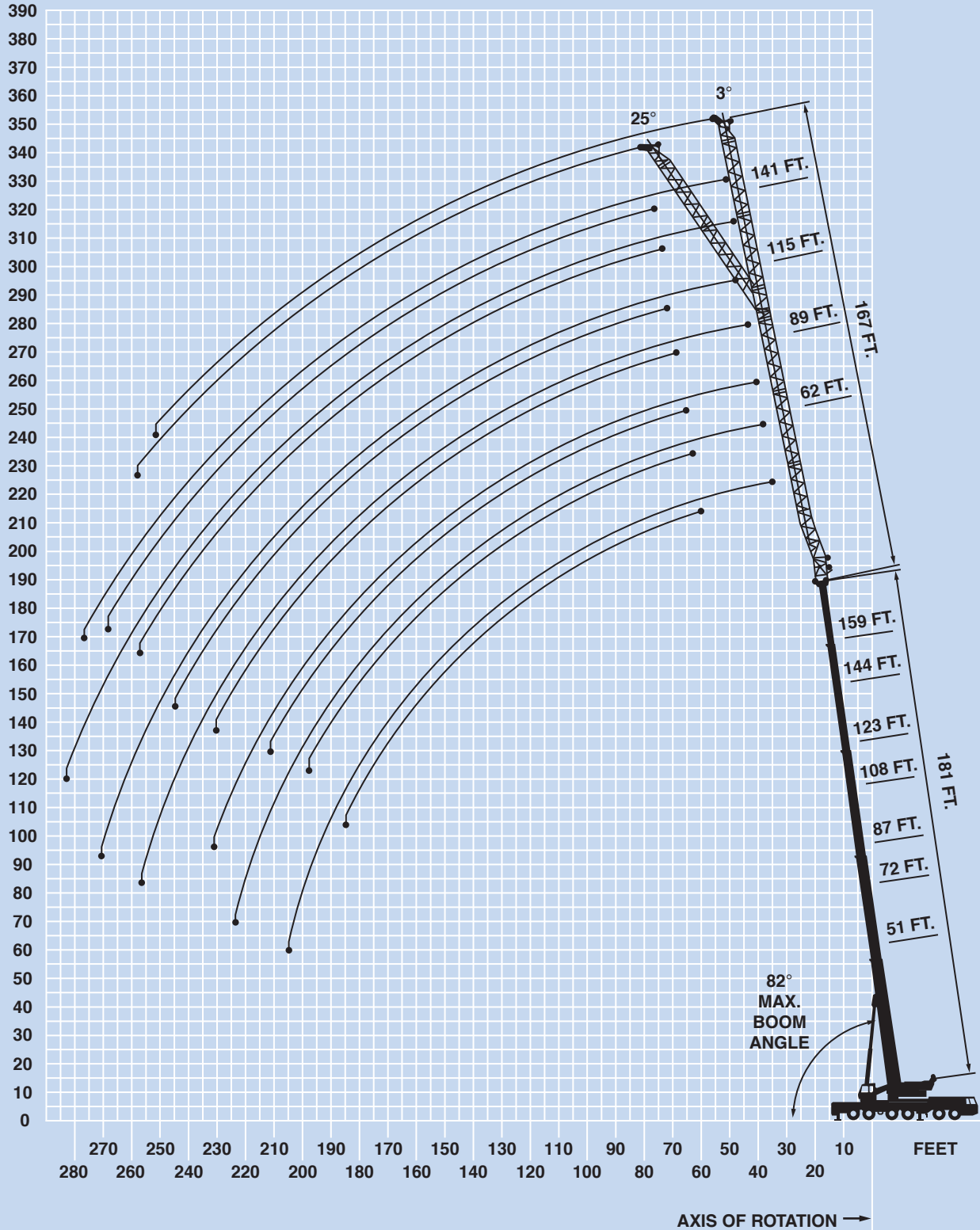
100%







360°

Working Range

FEET



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 51 - 197 ft. (15.5 - 60.0 m)
  62 - 167 ft. (19.0 - 51.0 m)
  220,458 lbs. (100 000 kg)
  100% 28' 6" Spread
  360°

Pounds										
Feet	62 FT		89 FT		115 FT		141 FT		167 FT	
	3°	25°	3°	25°	3°	25°	3°	25°	3°	25°
50	21.8									
55	21.8									
60	21.8	21.2	15.8							
65	21.8	21.2	15.8							
70	21.8	21.2	15.8		11.0					
75	21.8	21.2	15.8		11.0					
80	21.8	21.2	15.8	15.8	11.0		9.2			
85	21.8	21.2	15.8	15.8	11.0		9.2			
90	21.8	21.2	15.8	15.8	11.0		9.2		6.0	
95	21.8	21.2	15.8	15.8	11.0		9.2		6.0	
100	21.2	20.8	15.8	15.8	11.0	11.0	9.2		6.0	
105	20.2	20.0	15.8	15.8	11.0	11.0	9.2		6.0	
110	19.4	19.2	15.8	15.6	11.0	11.0	9.2		6.0	
115	18.6	18.4	15.8	15.2	11.0	11.0	9.2	9.2	6.0	
120	17.8	17.8	15.4	14.8	11.0	11.0	9.2	9.2	6.0	5.6
125	17.0	17.0	14.6	14.4	11.0	11.0	9.2	9.2	6.0	5.6
130	16.4	16.2	14.0	14.0	11.0	10.8	9.2	9.0	6.0	5.6
135	15.6	15.6	13.4	13.4	10.8	10.6	9.0	8.8	6.0	5.6
140	15.0	15.0	13.0	13.0	10.6	10.2	8.6	8.6	6.0	5.6
145	14.4	14.4	12.4	12.4	10.2	10.0	8.4	8.2	6.0	5.6
150	13.8	13.8	11.8	12.0	10.0	9.8	8.2	8.0	5.8	5.6
155	13.2	13.4	11.4	11.4	9.6	9.4	7.8	7.8	5.6	5.6
160	12.8	12.8	10.8	11.0	9.2	9.2	7.6	7.4	5.4	5.6
165	12.2	12.2	10.4	10.4	8.8	8.8	7.2	7.2	5.2	5.4
170	11.8	11.8	10.0	10.0	8.4	8.6	7.0	7.0	5.0	5.2
175	11.2	11.4	9.6	9.6	8.0	8.2	6.6	6.6	4.8	5.0
180	10.8	11.0	9.2	9.2	7.6	7.8	6.2	6.4	4.6	4.8
185	10.4	10.4	8.8	8.8	7.2	7.6	6.0	6.2	4.4	4.6
190	10.0	10.0	8.4	8.4	7.0	7.2	5.6	5.8	4.2	4.4
195	9.6	9.6	8.0	8.0	6.6	6.8	5.2	5.6	4.0	4.2
200	9.2	9.2	7.6	7.8	6.2	6.6	5.0	5.4	3.8	4.0
205	8.6	8.8	7.2	7.4	6.0	6.2	4.6	5.0	3.6	3.8
210	8.2		7.0	7.2	5.6	6.0	4.4	4.8	3.2	3.6
215	7.8		6.6	6.8	5.4	5.6	4.2	4.6	3.0	3.4
220	7.4		6.4	6.6	5.2	5.4	3.8	4.2		3.2
225	7.0		6.0	6.2	4.8	5.0	3.6	4.0		3.0
230	6.2		5.8	6.0	4.6	4.8	3.4	3.6		
235	5.4		5.4	5.6	4.4	4.6	3.2	3.4		
240			5.2		4.0	4.4	3.0	3.2		
245			5.0		3.8	4.0	2.8	3.0		
250			4.2		3.6	3.8		2.8		
255			3.6		3.4	3.6				
260					3.2					

 51 - 197 ft. (15.5 - 60.0 m)
  62 - 167 ft. (19.0 - 51.0 m)
  110,229 lbs. (50 000 kg)
  100% 28' 6" Spread
  360°

Pounds										
Feet	62 FT		89 FT		115 FT		141 FT		167 FT	
	3°	25°	3°	25°	3°	25°	3°	25°	3°	25°
50	21.8									
55	21.8									
60	21.8	21.2	15.8							
65	21.8	21.2	15.8							
70	21.8	21.2	15.8		11.0					
75	21.8	21.2	15.8		11.0					
80	21.8	21.2	15.8	15.8	11.0		9.2			
85	21.8	21.2	15.8	15.8	11.0		9.2			
90	21.8	21.2	15.8	15.8	11.0		9.2		6.0	
95	21.8	21.2	15.8	15.8	11.0		9.2		6.0	
100	21.2	20.8	15.8	15.8	11.0	11.0	9.2		6.0	
105	20.2	20.0	15.8	15.8	11.0	11.0	9.2		6.0	
110	19.4	19.2	15.8	15.6	11.0	11.0	9.2		6.0	
115	18.6	18.4	15.8	15.2	11.0	11.0	9.2	9.2	6.0	
120	17.2	17.8	15.4	14.8	11.0	11.0	9.2	9.2	6.0	5.6
125	15.4	16.4	14.6	14.4	11.0	11.0	9.2	9.2	6.0	5.6
130	13.6	14.6	14.0	14.0	11.0	10.8	9.2	9.0	6.0	5.6
135	12.0	13.0	12.8	13.4	10.8	10.6	9.0	8.8	6.0	5.6
140	10.6	11.4	11.4	13.0	10.6	10.2	8.6	8.6	6.0	5.6
145	9.2	10.0	10.0	12.2	10.2	10.0	8.4	8.2	6.0	5.6
150	8.0	8.6	8.6	10.8	9.2	9.8	8.2	8.0	5.8	5.6
155	6.8	7.4	7.4	9.4	8.0	9.4	7.8	7.8	5.6	5.6
160	5.6	6.2	6.4	8.2	6.8	9.2	7.0	7.4	5.4	5.6
165	4.4	5.2	5.2	7.0	5.8	8.8	6.0	7.2	5.2	5.4
170	3.4	4.0	4.2	6.0	4.8	7.6	5.0	7.0	5.0	5.2
175		3.0	3.4	5.0	3.8	6.4	4.0	6.6	4.2	5.0
180				4.0	3.0	5.4	3.2	5.8	3.2	4.8
185				3.0		4.6		4.8		4.6
190						3.6		4.0		4.2
195						2.6		3.0		3.2


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51 - 181 ft.
(15.5 - 55 m)



69 - 200 ft.
(21.0 - 61.0 m)



220,458 lbs.
(100 000 kg)



100%

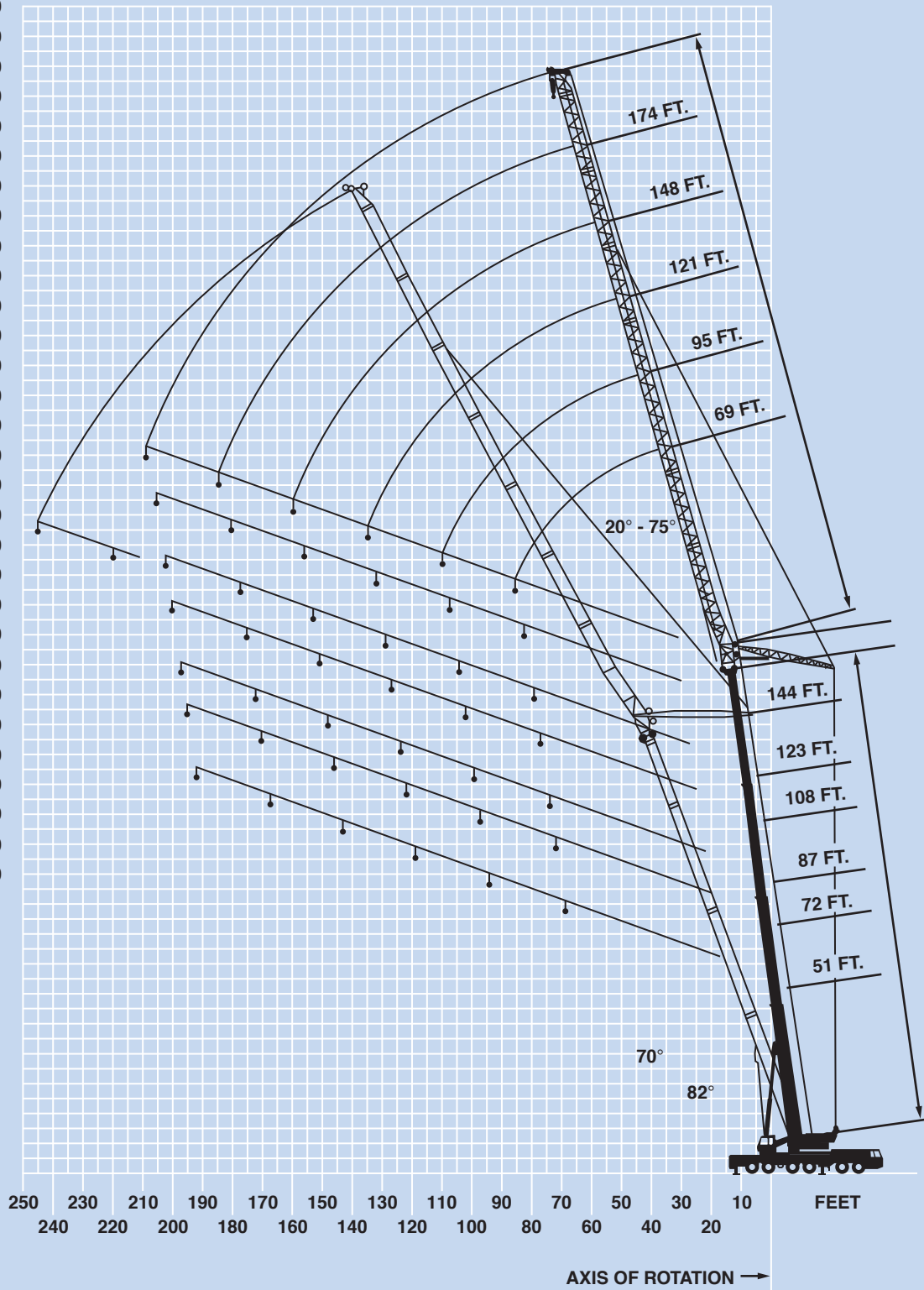


360°








Working Range







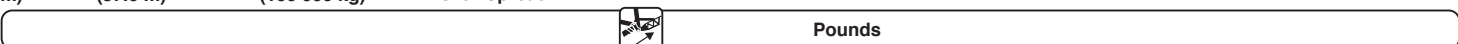
FEET







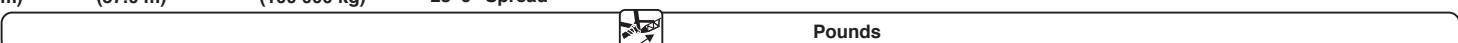
390
380
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51 - 181 ft. (15.5 - 55.0 m)	69 ft. (21.0 m)	220,458 lbs. (100 000 kg)	100% 28' 6" Spread	360°				
								Pounds
70° MAIN BOOM ANGLE								
Feet	51	72	87	108	123	144	160	181
55	102.0							
60	96.0							
65	89.0	89.0						
70	77.0	84.0						
75	65.0	78.0	69.0					
80		72.0	65.0					
85		66.0	62.0	47.0				
90			59.0	45.0				
95				43.0	35.0			
100					33.6			
105					32.2	25.8		
110						25.0		
115							20.0	
120								15.6
125								15.2

								
51 - 181 ft. (15.5 - 55.0 m)	95 ft. (37.0 m)	220,458 lbs. (100 000 kg)	100% 28' 6" Spread	360°				
								Pounds
70° MAIN BOOM ANGLE								
Feet	51	72	87	108	123	144	160	181
65	78.0							
70	78.0							
75	75.0							
80	69.0	67.0						
85	62.0	67.0	60.0					
90	55.0	63.0	57.0					
95	49.0	60.0	55.0					
100	43.4	56.0	52.0	39.6				
105	37.6	51.0	51.0	38.0	30.4			
110		45.0	48.0	36.4	29.2			
115			46.0	35.0	28.0			
120				33.8	27.0	21.6		
125				32.8	26.2	20.6	17.0	
130					25.4	20.0	16.2	
135						19.4	15.6	
140							15.0	12.0
145							14.4	11.4
150								11.0

								
51 - 181 ft. (15.5 - 55.0 m)	121 ft. (37.0 m)	220,458 lbs. (100 000 kg)	100% 28' 6" Spread	360°				
								Pounds
70° MAIN BOOM ANGLE								
Feet	51	72	87	108	123	144	160	181
80	56.0							
85	56.0							
90	55.0							
95	53.0	49.0						
100	50.0	49.0	44.0					
105	46.0	49.0	44.0					
110	42.2	49.0	44.0					
115	38.4	46.0	43.6	33.4				
120	34.8	42.4	42.4	32.0	25.6			
125	31.0	39.0	40.8	30.8	24.8	19.4		
130	27.4	35.2	39.0	29.8	23.8	18.6		
135		31.2	36.6	28.6	23.0	17.6		
140			33.8	27.6	22.2	16.8	13.4	
145			30.2	26.8	21.2	16.2	13.0	
150				26.0	20.6	15.8	12.4	9.4
155					20.0	15.2	12.0	9.0
160						14.8	11.4	8.6
165						14.2	11.0	8.4
170							10.6	8.0
175								7.6



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51 - 181 ft.
(15.5 - 55.0 m)

148 ft.
(45.0 m)

220,458 lbs.
(100 000 kg)

100%
28' 6" Spread

360°



Pounds

Feet	70° MAIN BOOM ANGLE							
	51	72	87	108	123	144	160	181
95	40.2							
100	39.8							
105	39.6	35.8						
110	39.4	35.6						
115	38.4	35.4	32.2					
120	37.0	35.2	32.2					
125	35.4	35.0	32.2	27.2				
130	32.8	34.8	32.0	27.0				
135	30.2	34.6	32.0	26.6	21.6			
140	27.8	33.2	31.8	26.2	20.8			
145	25.4	30.8	31.8	25.4	20.0	15.0		
150	23.2	28.2	31.6	24.6	19.2	14.4		
155	21.0	26.0	29.8	24.0	18.4	13.8		
160		23.8	27.6	23.2	17.8	13.2	10.2	
165		21.4	25.4	22.4	17.2	12.6	9.6	
170			23.2	21.8	16.6	12.2	9.2	6.6
175				21.2	16.0	11.8	8.8	6.4
180					15.6	11.4	8.4	6.0
185						11.0	8.0	5.6
190						10.6	7.8	5.4
195							7.6	5.2
200								4.8

51 - 160 ft.
(15.5 - 48.8 m)

174 ft.
(53.0 m)

220,458 lbs.
(100 000 kg)

100%
28' 6" Spread

360°



Pounds

Feet	70° MAIN BOOM ANGLE						
	51	72	87	108	123	144	160
105	28.8						
110	28.6						
115	28.4						
120	28.0	25.2					
125	27.6	25.2	23.0				
130	27.0	24.8	22.8				
135	26.2	24.6	22.8				
140	25.4	24.6	22.6	19.2			
145	24.4	24.4	22.4	19.2	16.6		
150	24.0	24.0	22.2	19.0	16.6		
155	23.2	23.8	22.2	19.0	16.6		
160	22.2	23.4	22.2	19.0	16.4	11.6	
165	20.6	22.8	22.0	19.0	16.0	11.4	
170	19.0	22.4	21.8	18.8	15.4	11.2	7.8
175	17.2	20.8	21.6	18.8	15.0	10.8	7.4
180	15.6	19.2	21.0	18.6	14.4	10.4	7.0
185		17.6	19.8	18.2	14.0	10.0	6.8
190		16.0	18.6	18.0	13.4	9.6	6.4
195			17.2	17.8	13.2	9.2	6.0
200				17.4	12.8	8.8	5.8
205					12.4	8.4	5.4
210					12.2	8.2	5.2
215							5.0

51 - 144 ft.
(15.5 - 43.9 m)

200 ft.
(61.0 m)

220,458 lbs.
(100 000 kg)

100%
28' 6" Spread

360°

















Pounds








Feet	70° MAIN BOOM ANGLE					
	51	72	87	108	123	144
120	17.0					
125	16.2					
130	15.8					
135	15.2	15.8				
140	14.8	15.2	15.2			
145	14.2	14.8	15.0			
150	13.8	14.4	14.4	13.0		
155	13.4	14.0	14.0	13.0		
160	13.0	13.4	13.4	13.0	11.0	
165	12.6	13.2	13.2	12.8	11.0	
170	12.2	12.6	12.8	12.6	11.0	7.2
175	11.8	12.2	12.4	12.4	11.0	7.2
180	11.4	12.0	12.2	12.2	11.0	7.2
185	11.2	11.6	11.8	11.8	10.8	7.2
190	10.8	11.2	11.4	11.4	10.8	7.2
195	10.6	11.0	11.2	11.2	10.8	7.2
200	10.4	10.8	11.0	11.0	10.6	7.2
205	10.2	10.6	10.6	10.6	10.6	7.0
210	10.0	10.4	10.4	10.4	10.4	7.0
215		10.0	10.2	10.2	10.0	6.8
220			10.0	10.0	9.8	6.4
225				9.8	9.6	6.2
230				9.4	9.4	6.0



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51 - 181 ft. (15.5 - 55.0 m)	69 ft. (21.0 m)	220,458 lbs. (100 000 kg)	100% 28' 6" Spread	360°					
					Pounds				
82° MAIN BOOM ANGLE									
Feet	51	72	87	108	123	144	160	181	
30	122.0								
35	122.0	103.0							
40	114.0	103.0	90.0						
45	104.0	103.0	90.0	71.0	58.0				
50	89.0	101.0	90.0	71.0	58.0	44.0			
55	76.0	93.0	90.0	71.0	58.0	44.0	34.2		
60	64.0	78.0	88.0	70.0	58.0	44.0	34.2	24.6	
65	52.0	65.0	75.0	69.0	58.0	44.0	34.2	24.6	
70		53.0	62.0	65.0	55.0	44.0	34.2	24.6	
75					52.0	44.0	34.2	24.6	
80							34.2	24.6	
85							34.2	24.6	

									
51 - 181 ft. (15.5 - 55.0 m)	95 ft. (29.0 m)	220,458 lbs. (100 000 kg)	100% 28' 6" Spread	360°					
					Pounds				
82° MAIN BOOM ANGLE									
Feet	51	72	87	108	123	144	160	181	
40	84.0	72.0							
45	84.0	72.0	64.0						
50	84.0	72.0	64.0						
55	82.0	72.0	64.0	53.0	44.0				
60	77.0	71.0	64.0	53.0	44.0	33.2			
65	67.0	71.0	64.0	53.0	44.0	33.2	25.8		
70	60.0	66.0	64.0	53.0	44.0	33.2	25.8		
75	54.0	61.0	62.0	53.0	44.0	33.2	25.8	17.8	
80	47.0	55.0	57.0	53.0	44.0	33.2	25.8	17.8	
85	41.4	49.0	53.0	53.0	43.8	33.2	25.8	17.8	
90	35.4	42.6	47.0	50.0	43.6	33.2	25.8	17.8	
95			41.0	47.0	42.4	33.2	25.8	17.8	
100					41.0	33.0	25.8	17.8	
105					39.2	32.6	25.8	17.8	
110							25.8	17.8	

									
51 - 181 ft. (15.5 - 55.0 m)	121 ft. (37.0 m)	220,458 lbs. (100 000 kg)	100% 28' 6" Spread	360°					
					Pounds				
82° MAIN BOOM ANGLE									
Feet	51	72	87	108	123	144	160	181	
45	60.0								
50	59.0								
55	58.0	50.0	46.0						
60	58.0	50.0	46.0	38.2	33.0				
65	58.0	50.0	45.0	38.2	33.0	24.4			
70	57.0	50.0	45.0	38.0	33.0	24.4			
75	55.0	50.0	45.0	38.0	33.0	24.4	18.8		
80	53.0	49.0	45.0	38.0	33.0	24.4	18.8	12.6	
85	49.0	49.0	45.0	38.0	32.8	24.4	18.8	12.6	
90	44.0	48.0	45.0	38.0	32.8	24.4	18.8	12.6	
95	40.2	45.0	44.0	37.8	32.8	24.4	18.8	12.6	
100	36.4	40.8	42.8	37.6	32.8	24.4	18.8	12.6	
105	32.6	36.8	41.2	37.6	32.8	24.4	18.8	12.6	
110	29.0	33.0	37.2	35.8	32.8	24.4	18.8	12.6	
115	25.6	29.0	33.2	34.0	32.8	24.4	18.8	12.6	
120			29.0	32.2	32.4	24.4	18.8	12.6	
125			24.8	30.6	31.0	24.4	18.8	12.6	
130					29.4	24.4	18.8	12.6	
135							18.8	12.6	



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51 - 181 ft. (15.5 - 55.0 m) 148 ft. (45.0 m) 220,458 lbs. (100 000 kg) 100% 28' 6" Spread 360°

82° MAIN BOOM ANGLE

Feet	51	72	87	108	123	144	160	181
55	40.2							
60	41.8	36.6	33.2					
65	41.4	36.4	33.0	27.6				
70	41.2	36.4	33.0	27.6				
75	41.2	36.2	33.0	27.6	23.8			
80	41.0	36.2	32.8	27.6	23.8	17.4	12.8	
85	40.6	36.0	32.6	27.4	23.8	17.4	12.8	7.8
90	40.4	35.8	32.6	27.4	23.8	17.4	12.8	7.8
95	39.4	35.6	32.6	27.4	23.8	17.4	12.8	7.8
100	37.8	35.2	32.4	27.2	23.6	17.4	12.8	7.8
105	36.4	34.6	32.2	27.2	23.6	17.4	12.8	7.8
110	33.6	33.8	32.2	27.2	23.6	17.4	12.8	7.8
115	31.0	33.0	32.0	27.2	23.6	17.4	12.8	7.8
120	28.4	31.6	32.0	27.0	23.6	17.4	12.8	7.8
125	25.8	29.0	31.6	26.8	23.4	17.4	12.8	7.8
130	23.6	26.4	29.2	26.0	23.4	17.2	12.8	7.8
135	21.2	23.8	26.8	25.2	23.2	17.2	12.8	7.8
140		21.4	24.6	24.2	22.8	17.2	12.8	7.8
145		19.0	22.0	23.2	22.4	17.2	12.8	7.8
150			19.0	22.4	22.0	17.2	12.8	7.8
155					21.6	17.2	12.8	7.8
160								7.8
165								7.8




51 - 181 ft. (15.5 - 48.8 m) 174 ft. (53.0 m) 220,458 lbs. (100 000 kg) 100% 28' 6" Spread 360°

82° MAIN BOOM ANGLE

Feet	51	72	87	108	123	144	160
60	30.2						
65	30.0	26.4	23.8				
70	29.8	26.4	23.8				
75	29.6	26.2	23.8	19.8			
80	29.4	26.0	23.6	19.6	17.0		
85	29.2	26.0	23.4	19.6	17.0	12.2	8.4
90	29.0	25.8	23.4	19.6	17.0	12.2	8.4
95	28.8	25.6	23.2	19.6	17.0	12.0	8.4
100	28.6	25.6	23.0	19.4	17.0	12.0	8.4
105	28.0	25.4	23.0	19.4	16.8	12.0	8.4
110	27.4	25.2	23.0	19.4	16.8	12.0	8.4
115	26.8	25.0	22.8	19.2	16.8	12.0	8.4
120	26.2	24.8	22.6	19.2	16.8	12.0	8.4
125	25.8	24.4	22.4	19.2	16.8	12.0	8.4
130	25.2	24.2	22.4	19.0	16.6	12.0	8.4
135	24.0	23.8	22.2	19.0	16.6	12.0	8.4
140	22.4	23.4	22.0	19.0	16.6	12.0	8.4
145	21.0	23.0	21.8	19.0	16.6	12.0	8.4
150	19.2	21.2	21.4	18.8	16.4	12.0	8.4
155	17.6	19.6	21.2	18.8	16.4	12.0	8.4
160	15.8	17.8	20.2	18.6	16.4	12.0	8.4
165	14.0	16.0	18.2	18.4	16.2	11.8	8.4
170		14.2	16.4	17.4	16.0	11.8	8.2
175			14.2	16.4	15.8	11.6	8.2
180					15.4	11.6	8.2
185							8.2
190							8.2



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 51 - 160 ft.
(15.5 - 48.8 m)

 200 ft.
(61.0 m)

 220,458 lbs.
(100 000 kg)

 100%
28' 6" Spread

 360°

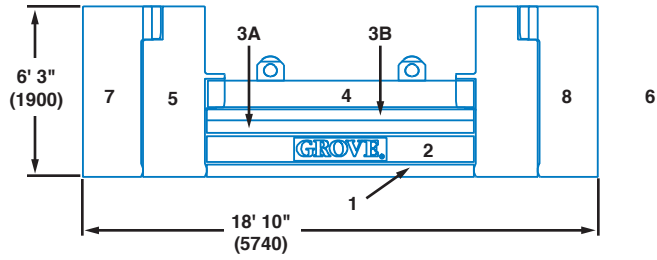
 Pounds 

Feet	82° MAIN BOOM ANGLE						
	51	72	87	108	123	144	160
65	21.2						
70	20.8						
75	20.6	18.4	16.6				
80	20.2	18.2	16.6	13.6			
85	20.0	18.0	16.6	13.6	11.4		
90	19.2	18.0	16.4	13.6	11.4		
95	18.6	18.0	16.4	13.4	11.4	7.4	
100	18.0	17.6	16.2	13.4	11.4	7.4	4.4
105	17.4	17.2	15.8	13.4	11.4	7.4	4.4
110	16.8	16.6	15.6	13.2	11.2	7.4	4.4
115	16.2	16.2	15.2	13.2	11.2	7.4	4.4
120	15.6	15.6	15.0	13.2	11.2	7.4	4.4
125	15.2	15.2	14.8	13.2	11.2	7.4	4.4
130	14.4	14.6	14.4	13.0	11.2	7.4	4.4
135	14.0	14.2	14.0	12.8	11.2	7.4	4.4
140	13.8	13.8	13.6	12.6	11.0	7.4	4.4
145	13.4	13.4	13.2	12.4	11.0	7.4	4.4
150	12.8	13.0	12.8	12.2	11.0	7.4	4.4
155	12.6	12.6	12.6	12.0	11.0	7.2	4.4
160	12.0	12.2	12.2	11.8	11.0	7.2	4.4
165	11.6	11.8	11.8	11.4	10.8	7.2	4.4
170	11.2	11.6	11.6	11.2	10.6	7.2	4.4
175	11.0	11.2	11.2	11.0	10.4	7.2	4.4
180	10.6	10.8	11.0	10.8	10.2	7.2	4.4
185	10.2	10.4	10.8	10.4	10.0	7.2	4.4
190	10.0	10.2	10.4	10.2	10.0	7.2	4.4
195		9.6	10.2	10.0	9.8	7.2	4.4
200				9.8	9.4	7.2	4.4
205						7.2	4.4
210						7.2	4.4
215							4.4

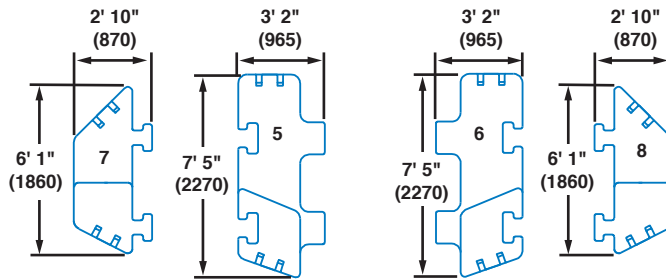
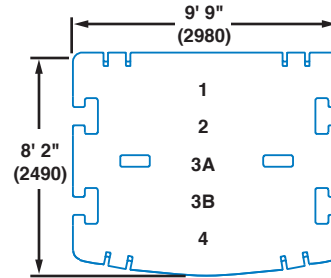
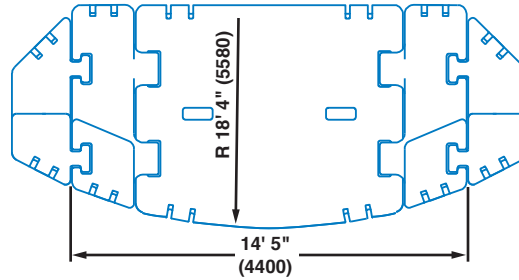


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Counterweight configurations



- 1. 17,637 lbs. (8000 kg)
- 2. 30,864 lbs. (14000 kg)
- 3A. 15,432 lbs. (7000 kg)
- 3B. 15,432 lbs. (7000 kg)
- 4. 30,864 lbs. (14000 kg)
- 5. 33,067 lbs. (15000 kg)
- 6. 33,067 lbs. (15000 kg)
- 7. 22,046 lbs. (10000 kg)
- 8. 22,046 lbs. (10000 kg)



Note: () Reference dimensions in mm

	1	2	3A	3B	4	5	6	7	8
17,637 lbs.	X								
45,500 lbs.	X	X							
79,635 lbs.	X	X	X	X					
110,229 lbs.	X	X	X	X	X				
176,367 lbs.	X	X	X	X	X	X	X		
220,459 lbs.	X	X	X	X	X	X	X	X	X



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