



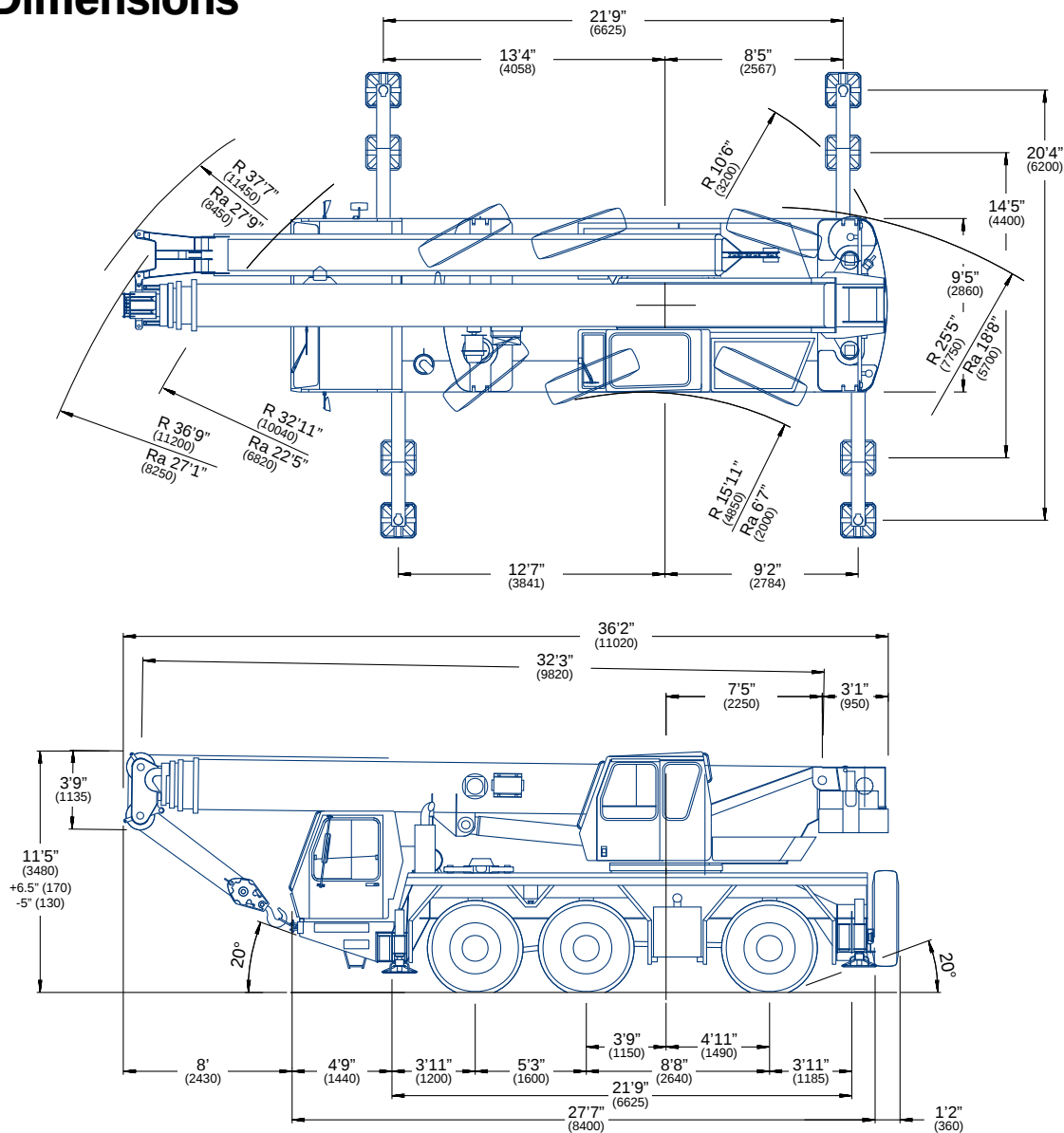
GMK3050

All Terrain Hydraulic Crane





Dimensions



Note: () Reference dimensions in mm

BASIC WEIGHTS (LBS.)

With Mercedes Power, 6x4x6, 20.5 R25 Tires,

12,500 lbs Fixed Counterweight

Hydraulic Oil Cooler, Brackets for Lattice Extension

45,632 28,548 74,180

Additions:

Outrigger Pads

227

104

331

Auxiliary Hoist

-(712)

1,947

1,235

Lattice Extension - 28/49 ft

2,895

-(955)

1,940

Rooster Sheave

293

-(181)

112

6 x 6 Drive

962

-(168)

794

Electric Driveline Retarder

44

375

419

16.00 R25 Tires in lieu

-(370)

-(186)

-(556)

14.00 R25 Tires in lieu

-(899)

-(450)

-(1,349)

Spare Tire - 14.00 R25 (with stowage bracket)

-(282)

866

584

Spare Tire - 16.00 R25 (with stowage bracket)

-(352)

1,069

717

Spare Tire - 20.5 R25 (with stowage bracket)

-(408)

1,217

809



Working range



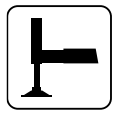
32 - 125 ft.
(9.8 - 38.1 m)



28 - 49 ft.
(8.7 - 15 m)



23,100 lbs.
(10,500 kg)

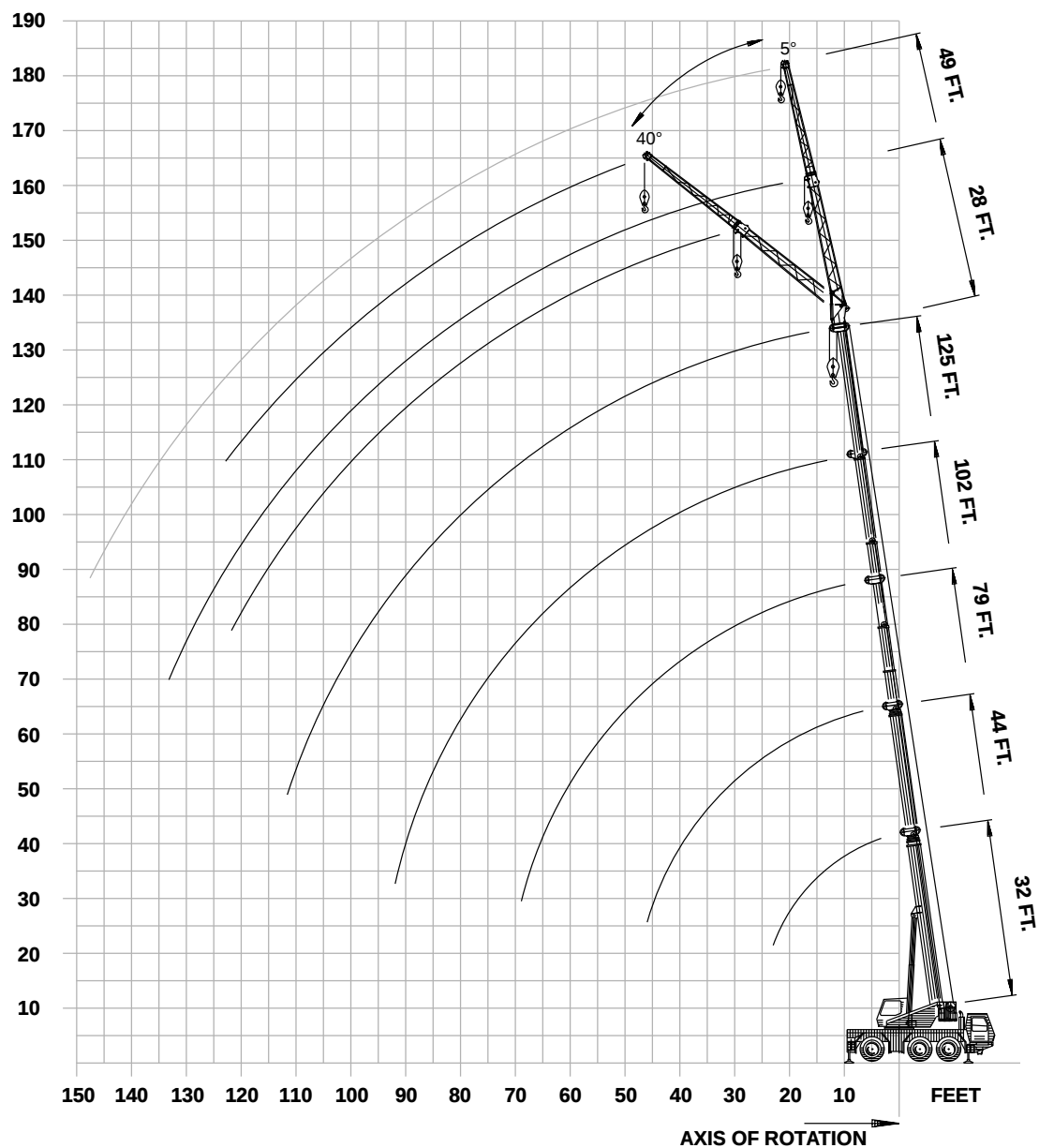


100%



360°

FEET





Superstructure specifications

Boom

32 ft. - 125 ft. (9.8 m - 38.1 m) five section, full-power boom. Maximum tip height: 133 ft. (40.5 m).

Boom Elevation

Single lift cylinder with safety valve provides boom angle from -3° to +82°.

Lattice Extension

28 ft. - 49 ft. (8.7 m - 15 m) lattice swingaway extension. Hydraulic offset / luffing capability 5° - 40°.

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

Full vision aluminum cab, safety glass windows and adjustable operator's seat with hydraulic suspension. Other features include engine independent heater, arm-rest integrated crane controls, and ergonomically arranged instrumentation for carrier and superstructure.

Swing

Axial piston motor with planetary gear. Holding and service brake. Swing speed variable from 0 - 2.5 RPM.

Counterweight

23,150 lbs. (10 500 kg) consisting of various sections with hydraulic installation/removal system controlled from the cab.

Hydraulic system

Two separate open pump circuits with one axial piston variable displacement pump (load sensing) and one gear pump for swing. Thermostatically controlled oil cooler.

159 gallon (600 L) reservoir capacity.

All crane movements infinitely variable by hydraulic pilot circuit control levers with automatic reset to zero.

HOIST SPECIFICATIONS

Main Hoist

Axial piston variable displacement motor with planetary gear and multiple disc brake. Rope drum with special grooving. "Thumb-thumper" hoist drum rotation indicator alerts operator of hoist movement.

Single line pull: 9,900 lbs.
(44 kN)

Single line speed: 394 ft./min.
(120m/min)

Rope diameter: 16 mm

Rope length: 492 ft.
(150 m)

Auxiliary Hoist

Axial piston variable displacement motor with planetary gear and multiple disc brake. Rope drum with special grooving. "Thumb-thumper" hoist drum rotation indicator alerts operator of hoist movement.

Single line pull: 9,900 lbs.
(44 kN)

Single line speed: 394 ft./min.
(120m/min)

Rope diameter: 16 mm

Rope length: 492 ft.
(150 m)

* Optional equipment

- *Second spotlight
- *Stereo/cassette player
- *Air Conditioning

*Denotes optional equipment



Carrier specifications

Chassis

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

Outrigger System

Four hydraulically telescoping beam outriggers with vertical cylinders and outrigger pads. Outriggers can be set in 2 positions:

Fully extended (100%) - 20' 4" (6.2m)

Partially extended (50%) - 14' 5" (4.4m)

Independent horizontal and vertical movement control on each side of the carrier and from the crane operator's cab. Crane level indicators at each control station.

Engine

Mercedes-Benz OM501LA, diesel, 6 cylinders, water cooled, turbo charged and aftercooled, 349 HP (260 kW) at 1800 rpm. Max. torque: 1,276 ft./lbs. (1730 Nm) at 1080 rpm.

Engine emission: EURO II/EUROMOT/EPA/CARB (off highway).

Fuel Tank Capacity: 95 gallons. (360 L).

Transmission

Allison automatic MD 3066 P, 6 forward and 1 reverse speed. Transfer case with 2 speeds, inter-axle differential lock and integrated central power take-off for the second axle line.

Drive/Steer

6 x 4 x 6

Axles

1st axle line - steer.

2nd axle line - drive/steer.

3rd axle line - drive/steer.

Drive axles with planetary hub reduction and center mounted gearing

Suspension

GMK3050 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

6 tires, 20.5 R25.

Steering

Dual circuit, Servocom power steering with emergency steering pump. Axles 1 and 2 steer on highway.

Separate steering of the 3rd axle line for all-wheel steering and crab-steer is controlled by an electric rocker switch.

Brakes

Service brake: pneumatic dual circuit acting on all wheels, air dryer. Permanent brake: exhaust brake and constant throttle brake is standard.

Parking brake: pneumatically operated spring-loaded, acting on 2nd and 3rd axle lines.

Cab

Aluminum, two-man design, safety glass, driver's seat with hydraulic suspension, engine-dependent hot water heater. Complete instrumentation and driving controls. Cab can be tilted forward by 60° for easy access to engine, transmission, hydraulic pumps, heater and batteries.

Electrical system

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

Maximum Speed

53 mph (85 km/h) with 20.5 R25 Tires

Gradeability (theoretical)

52% with 20.5 R25 Tires

Miscellaneous standard equipment

Additional hydraulic oil cooler; spare tire and wheel - 20.5 R25 with carry bracket; flashing amber warning light on carrier cab; working light; tool kit; fire extinguisher; rooster sheave; radio cassette in carrier cab.

* Optional equipment

* 6 x 6 x 6

* Electric driveline retarder

* 16.00 R25 tires (vehicle width 9 ft. [2.75 m])

* 14.00 R25 tires (vehicle width 8 ft. 2 in. [2.50 m])

* Engine-independent hot water heater, with engine pre-heater

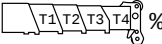
* Trailing boom kit (less dolly)

* Air conditioning

* Denotes optional equipment

† "G MEGATRAK" (and design) is a trademark of Grove U.S. L.L.C.

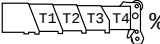


									
32 - 125 ft. (9.8 - 38.1 m)	23,150 lbs. (10,500 kg)	100% 20'4" Spread	360°						
	 Pounds								
Feet	32	44	55	67	79	90	102	113	125
10	*110,000								
10	108,000	67,000	67,000	38,800	38,800	36,400			
15	81,000	61,000	67,000	38,800	38,800	36,400	26,600	20,600	
20	61,000	50,000	56,000	38,800	38,800	36,400	26,600	20,600	17,400
25		42,000	43,800	38,800	37,600	34,600	26,400	20,600	17,400
30		35,200	36,400	33,000	32,800	30,000	24,600	20,400	17,400
35			28,200	26,200	26,200	26,000	22,400	20,200	17,400
40			22,600	23,200	21,000	21,400	20,400	20,000	17,200
45			18,600	19,200	17,000	17,600	17,800	17,800	16,800
50				16,200	14,600	16,000	15,000	15,200	15,200
55					13,600	14,400	13,400	13,000	13,000
60					12,000	12,400	12,400	11,000	11,200
65					10,400	10,600	10,800	9,200	9,600
70						9,200	9,400	7,800	8,200
75						8,000	8,200	6,600	7,000
80							7,200	5,600	6,000
85							6,400	4,800	5,000
90							5,600	4,000	4,200
95								3,400	3,600
100									3,000
105									2,400
110									2,000
									
T1	0	50/0	100/0	100/0	100/0	100/0	100/0	100	100
T2	0	0/17	0/33	17/50	33/67	50/83	67/100	83	100
T3	0	0/17	0/33	17/50	33/67	50/83	67/100	83	100
T4	0	0/17	0/33	17/50	33/67	50/83	67/100	83	100

* Over rear only.

Lifting capacities greater than 97,000 lbs (44,000 kg) require additional equipment.

NOTE: Above loadchart also available with 50% outriggers.

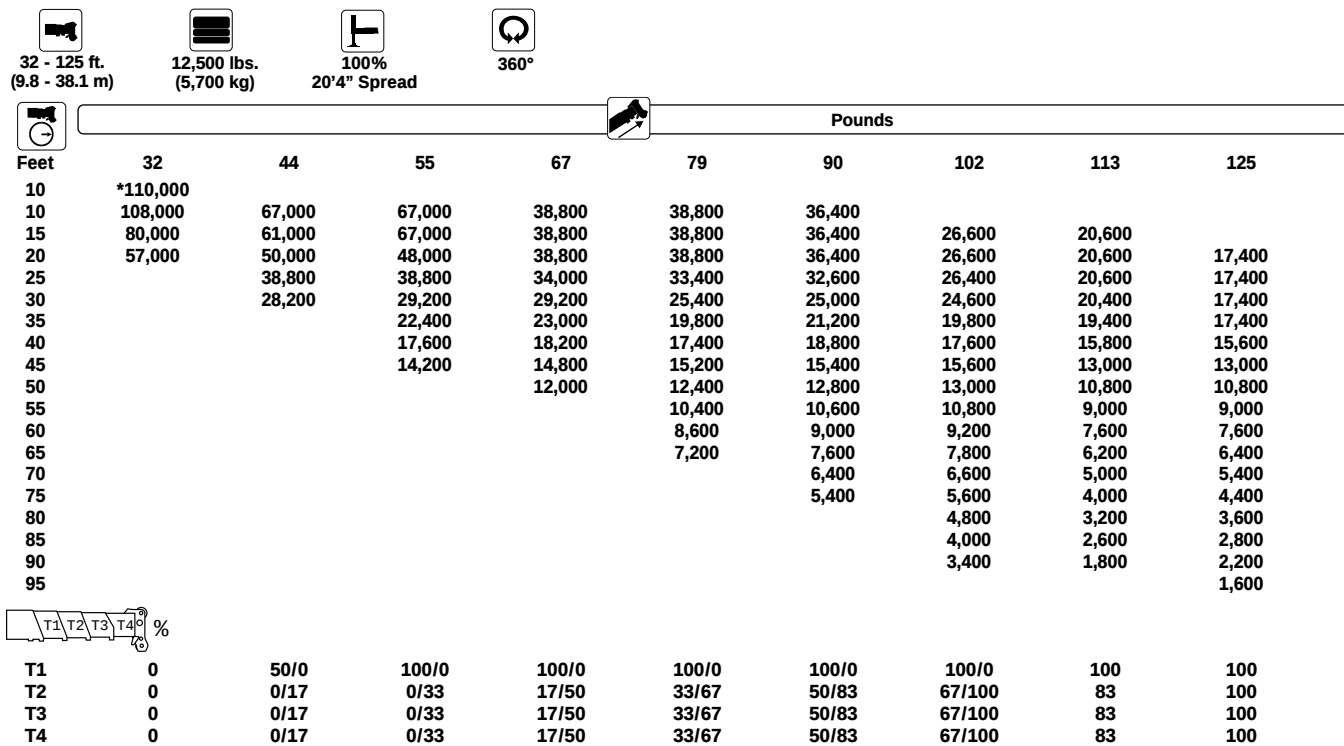
									
32 - 125 ft. (9.8 - 38.1 m)	15,400 lbs. (7,000 kg)	100% 20'4" Spread	360°						
	 Pounds								
Feet	32	44	55	67	79	90	102	113	125
10	*110,000								
10	108,000	67,000	67,000	38,800	38,800	36,400			
15	81,000	61,000	67,000	38,800	38,800	36,400	26,600	20,600	
20	58,000	50,000	52,000	38,800	38,800	36,400	26,600	20,600	17,400
25		38,800	38,800	36,400	35,800	34,600	26,400	20,600	17,400
30		30,000	31,200	29,200	27,400	27,000	24,600	20,400	17,400
35			24,000	24,600	21,600	21,600	21,400	20,200	17,400
40			19,200	19,600	17,400	19,400	17,600	17,200	17,000
45			15,400	16,000	16,000	16,800	16,000	14,400	14,200
50				13,200	13,600	14,000	14,200	12,000	12,000
55					11,400	11,800	12,000	10,200	10,200
60					9,600	10,000	10,200	8,400	8,600
65					8,000	8,400	8,600	7,000	7,200
70						7,200	7,400	5,800	6,000
75						6,200	6,400	4,800	5,000
80							5,400	3,800	4,200
85							4,600	3,200	3,400
90							4,000	2,400	2,800
95								1,800	2,200
100									1,600
									
T1	0	50/0	100/0	100/0	100/0	100/0	100/0	100	100
T2	0	0/17	0/33	17/50	33/67	50/83	67/100	83	100
T3	0	0/17	0/33	17/50	33/67	50/83	67/100	83	100
T4	0	0/17	0/33	17/50	33/67	50/83	67/100	83	100

* Over rear only.

Lifting capacities greater than 97,000 lbs (44,000 kg) require additional equipment.

NOTE: Above loadchart also available with 50% outriggers.

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.



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FIXED LATTICE EXTENSION

102 - 125 ft. (31 - 38.1 m)	28 - 49 ft. (8.7 - 15 m)	23,100 lbs. (10,500 kg)	100% 20'4" Spread	360°

Pounds												
102 FT MAIN BOOM						125 FT MAIN BOOM						
Feet	5°	28 FT 20°	40°	5°	49 FT 20°	40°	5°	28 FT 20°	40°	5°	49 FT 20°	40°
20	10,000											
25	10,600			6,000								
30	10,600	10,600		6,600			8,400					
35	10,600	10,200	8,400	6,600			8,400			5,400		
40	10,600	9,800	8,200	6,400	5,800		8,400	8,400		5,400		
45	10,600	9,400	8,000	6,400	5,600		8,400	8,400	7,800	5,400		
50	10,200	9,000	7,800	6,400	5,400	4,400	8,400	8,400	7,800	5,400	5,200	
55	9,600	8,800	7,600	6,200	5,200	4,200	8,400	8,400	7,600	5,400	5,200	
60	9,200	8,400	7,400	5,800	5,000	4,200	8,400	8,400	7,400	5,400	5,000	4,200
65	8,600	8,200	7,400	5,600	4,800	4,000	8,400	8,400	7,400	5,400	4,800	4,000
70	8,200	7,800	7,200	5,400	4,600	4,000	8,400	8,200	7,200	5,400	4,600	4,000
75	7,800	7,600	7,200	5,200	4,400	3,800	7,400	7,800	7,200	5,400	4,600	4,000
80	7,400	7,200	7,000	5,000	4,400	3,800	6,400	6,800	7,200	5,200	4,400	3,800
85	6,800	7,000	6,800	4,800	4,200	3,800	5,600	5,800	6,200	5,000	4,400	3,800
90	6,000	6,200	6,400	4,600	4,200	3,800	4,800	5,000	5,200	4,800	4,200	3,800
95	5,400	5,400	5,600	4,600	4,000	3,600	4,000	4,200	4,400	4,800	4,200	3,600
100	4,600	4,800		4,200	4,000	3,600	3,400	3,600	3,800	4,000	4,000	3,600
105	4,000	4,200		4,200	3,800	3,600	2,800	3,000	3,200	3,600	4,000	3,600
110	3,600	3,600		4,000	3,800	3,600	2,200	2,400	2,600	3,000	3,400	3,600
115	3,200			3,800	3,600	3,600	1,800	2,000		2,600	3,000	3,200
120				3,400	3,600					2,200	2,400	2,800
125				3,000	3,200						2,000	2,200
130				2,600	2,600						1,600	1,800
135				2,200								

	T1	T2	T3	T4	%
T1					0/100
T2					100/67
T3					100/67
T4					100/67

LATTICE EXTENSION (LUFFING)

102 - 125 ft. (31 - 38.1 m)	28 - 49 ft. (8.7 - 15 m)	23,100 lbs. (10,500 kg)	100% 20'4" Spread	360°

Pounds									
102 FT MAIN BOOM					125 FT MAIN BOOM				
Feet	28 FT		49 FT		28 FT		49 FT		
	*5° - 20°	*20° - 40°	*5° - 20°	*20° - 40°	*5° - 20°	*20° - 40°	*5° - 20°	*20° - 40°	
30	5,600								
35	5,200	4,200							
40	5,000	4,000	2,800		5,200				
45	4,600	4,000	2,600		5,000	4,000			
50	4,400	3,800	2,400	2,000	4,800	4,000		2,600	
55	4,200	3,800	2,400	2,000	4,600	3,800		2,600	
60	4,000	3,600	2,200	1,800	4,400	3,800		2,400	2,000
65	3,800	3,600	2,000	1,800	4,200	3,800		2,200	1,800
70	3,800	3,600	2,000	1,800	4,000	3,600		2,200	1,800
75	3,600	3,400	1,800	1,600	4,000	3,600		2,000	1,800
80	3,400	3,400	1,800	1,600	3,800	3,600		2,000	1,800
85	3,400	3,400	1,800	1,600	3,600	3,400		1,800	1,600
90	3,200	3,200	1,600	1,600	3,600	3,400		1,800	1,600
95	3,200	3,200	1,600	1,600	3,400	3,400		1,800	1,600
100	3,000		1,600	1,400	3,000	3,200		1,600	1,600
105	3,000		1,400	1,400	2,600	2,800		1,600	1,600
110	2,800		1,400	1,400	2,000	2,200		1,600	1,400
115			1,400	1,400	1,600			1,600	1,400
120								1,400	1,400
125									1,400
130									1,400

	T1	T2	T3	T4	%
T1					0/100
T2					100/67
T3					100/67
T4					100/67

* Luffing under load.

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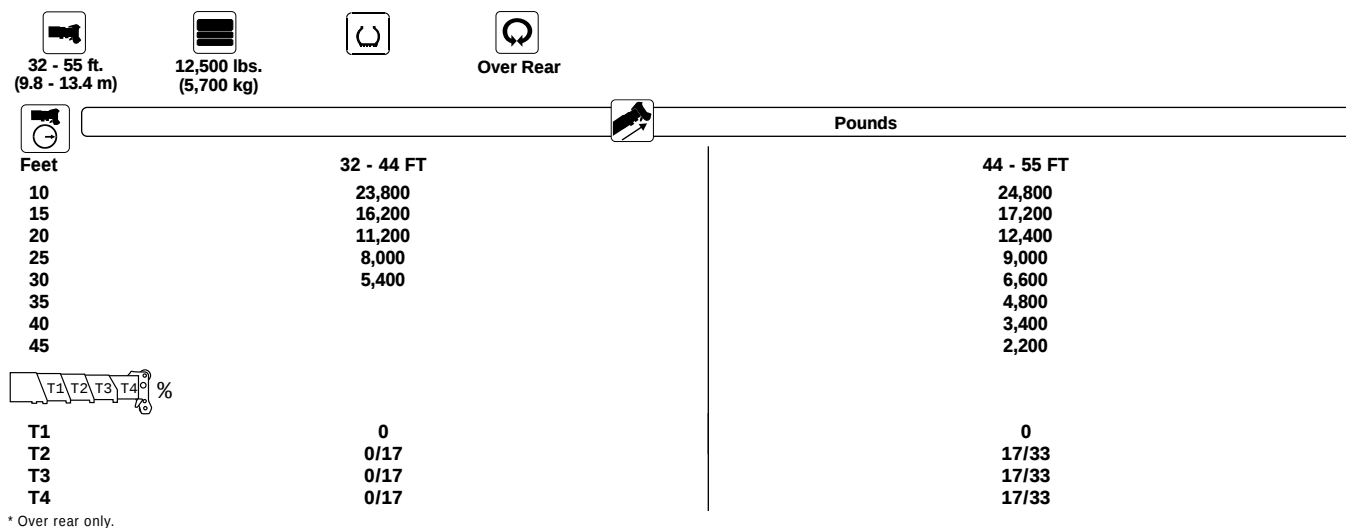
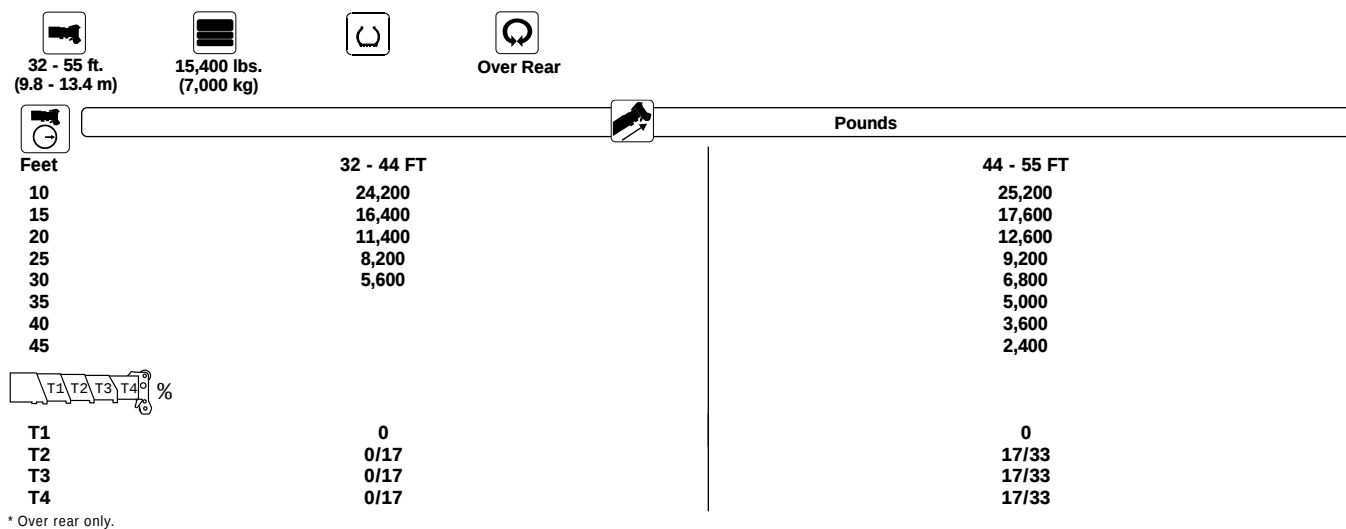
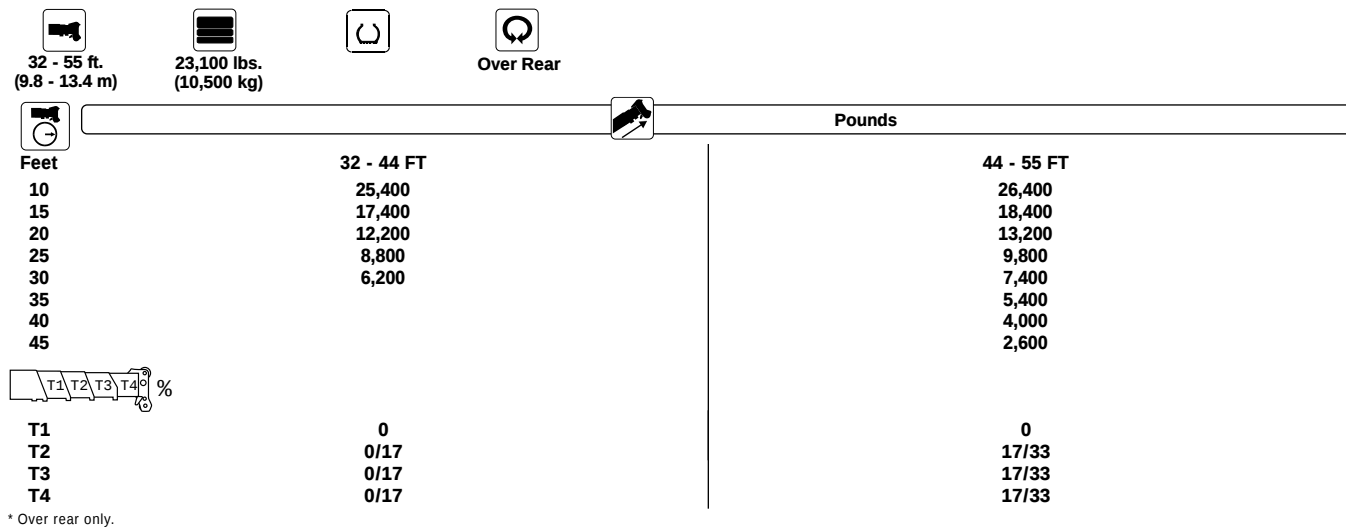


FIXED LATTICE EXTENSION														
	102 - 125 ft. (31 - 38.1 m)			28 - 49 ft. (8.7 - 15 m)			15,400 lbs. (7,000 kg)			100% 20'4" Spread			360°	
														
102 FT MAIN BOOM							125 FT MAIN BOOM							
Feet	5°	28 FT 20°	40°	5°	49 FT 20°	40°	5°	28 FT 20°	40°	5°	49 FT 20°	40°		
20	10,000													
25	10,600				6,000									
30	10,600	10,600			6,600		8,400							
35	10,600	10,200	8,400		6,600		8,400			5,400				
40	10,600	9,800	8,200	6,400	5,800		8,400	8,400		5,400				
45	10,600	9,400	8,000	6,400	5,600		8,400	8,400	7,800	5,400				
50	10,200	9,000	7,800	6,400	5,400	4,400	8,400	8,400	7,800	5,400	5,200			
55	9,600	8,800	7,600	6,200	5,200	4,200	8,400	8,400	7,600	5,400	5,200			
60	9,200	8,400	7,400	5,800	5,000	4,200	8,400	8,400	7,400	5,400	5,000	4,200		
65	8,600	8,200	7,400	5,600	4,800	4,000	7,400	8,000	7,400	5,400	4,800	4,000		
70	8,000	7,800	7,200	5,400	4,600	4,000	6,200	6,800	7,200	5,400	4,600	4,000		
75	7,000	7,200	7,200	5,200	4,400	3,800	5,400	5,800	6,200	5,400	4,600	4,000		
80	6,000	6,200	6,600	5,000	4,400	3,800	4,400	4,800	5,200	5,000	4,400	3,800		
85	5,200	5,400	5,600	4,800	4,200	3,800	3,800	4,200	4,400	4,400	4,400	3,800		
90	4,400	4,600	4,800	4,600	4,200	3,800	3,000	3,400	3,800	3,800	4,200	3,800		
95	3,800	4,000	4,200	4,400	4,000	3,600	2,600	2,800	3,000	3,200	3,800	3,600		
100	3,200	3,400		4,000	3,800	3,600	2,000	2,200	2,400	2,600	3,200	3,600		
105	2,800	2,800		3,400	3,800	3,600	1,400	1,800	1,800	2,200	2,600	3,200		
110	2,400	2,400		3,000	3,200	3,600			1,400	1,800	2,200	2,600		
115	2,000			2,600	2,800	3,000				1,400	1,800	2,000		
120				2,200	2,400						1,400	1,600		
125				1,800	2,000									
130				1,600	1,600									
T1 T2 T3 T4 °														
T1	0/100					100								
T2	100/67					100								
T3	100/67					100								
T4	100/67					100								

LATTICE EXTENSION (LUFFING)																									
	102 - 125 ft. (31 - 38.1 m)			28 - 49 ft. (8.7 - 15 m)			15,400 lbs. (7,000 kg)			100% 20'4" Spread			360°												
	Pounds																								
102 FT MAIN BOOM													125 FT MAIN BOOM												
28 FT													49 FT												
Feet	*5° - 20°		*20° - 40°		*5° - 20°		*20° - 40°		*5° - 20°		*20° - 40°		*5° - 20°		*20° - 40°										
30	5,600								5,200																
35	5,200		4,200						4,800		4,000														
40	5,000		4,000		2,800				5,000		4,000														
45	4,600		4,000		2,600				4,800		4,000														
50	4,400		3,800		2,400		2,000		4,800		4,000				2,600										
55	4,200		3,800		2,400		2,000		4,600		3,800				2,600										
60	4,000		3,600		2,200		1,800		4,400		3,800				2,400 2,000										
65	3,800		3,600		2,000		1,800		4,200		3,800				2,200 1,800										
70	3,800		3,600		2,000		1,800		4,000		3,600				2,200 1,800										
75	3,600		3,400		1,800		1,600		4,000		3,600				2,000 1,800										
80	3,400		3,400		1,800		1,600		3,800		3,600				2,000 1,800										
85	3,400		3,400		1,800		1,600		3,400		3,400				1,800 1,600										
90	3,200		3,200		1,600		1,600		2,800		3,200				1,800 1,600										
95	3,200		3,200		1,600		1,600		2,200		2,600				1,800 1,600										
100	3,000				1,600		1,400		1,800		2,000				1,600 1,600										
105	2,600				1,400		1,400		1,400		1,600				1,600 1,600										
110	2,200				1,400		1,400								1,400 1,400										
115					1,400		1,400								1,400										
T1T2T3T4 ° %																									
T1	0/100										100														
T2	100/67										100														
T3	100/67										100														
T4	100/67										100														
* Luffing under load.																									

* Luffing under load.

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.



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Rated Lifting Capacities

IMPORTANT NOTES:

WARNING: THIS CHART IS ONLY A GUIDE.
The notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

1. All rated loads meet ANSI/ASME B30.5, Mobile and Locomotive Cranes. Testing and development were performed to SAEJ1063, Cantilevered Boom Crane Structures - Method of Test and SAEJ765 Crane Stability Test Code.

2. Capacities given do not include the weight of hook blocks, slings, auxiliary lifting equipment and load handling devices. Their weights must be added to the load to be lifted. When more than minimum required reeving is used, the additional rope weight shall be considered part of the load.

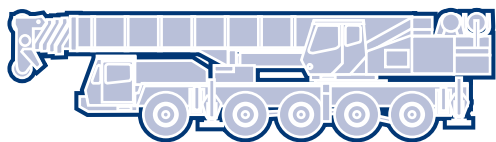
3. The machine shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats to spread the load to a larger bearing surface.

4. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or next longer or shorter boom length shall be used.

5. For outrigger operation, outriggers shall be properly extended with tires raised off the ground before operating the boom or lifting loads.

Symbols Glossary

	Frame		Steering
	Outriggers		Transmission
	Outrigger Controls		Axles
	Engine		Brakes
	Fuel Tank Capacity		Tires
	Electrical System		Suspension
	Drive		Rotation
	Lights		Boom Elevation
	Cab		Swing
	Boom		Counterweight
	Fixed Swingaway		Oil
	Tele-Swingaway		Hydraulic System
	Lattice Extension (Luffing)		Hoist
	Boom Nose		Radius
	Boom Extension		Boom Length
	Speed		Hookblock
	Grade		Gear
	Lattice Extension		Luffing Jib



GROVE®
worldwide



**Grove Worldwide –
World Headquarters**
Grove U.S. L.L.C.
1565 Buchanan Trail East
P.O. Box 21
Shady Grove, Pennsylvania 17256, U.S.A.
Tel: [Int + 1] (717) 597-8121
Fax: [Int + 1] (717) 597-4062
Western Hemisphere

Grove France S.A.
16, chaussée Jules-César, 95520 OSNY
B.P. 203, 95523 CERGY PONTOISE CEDEX
France
Tel: [Int + 33] (1) 30313150
Int: [Int + 33] (1) 30386085



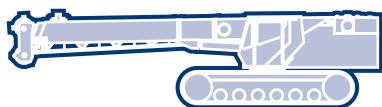
Grove Europe Limited*
Sunderland SR4 6TT, England
Tel: [Int + 44] 191 565-6281
Fax: [Int + 44] 191 564-0442
Europe, Africa, Middle East, Asia/Pacific

Grove Asia/Pacific - Regional Office
171 Chin Swee Road
San Centre
Singapore 0316
Tel: [Int + 65] 536-6112
Fax: [Int + 65] 536-6119
Asia/Pacific, Near East



Grove Europe Limited*
Telford Road, Bicester
Oxfordshire, OX6 0TZ
Tel: [Int + 44] 1869 878-890
Fax: [Int + 44] 1869 878-891
*Grove Europe Limited, Registered in England,
Number 1845128, Registered office, Crown Works,
Pallion, Sunderland, Tyne & Wear, England SR4 6TT

Grove China - Representative Office
Room 713, Towercrest Plaza
No. 3 Mai Zi Dian West Road
Chao Yang District
Beijing, China 100016
Tel: [Int + 86] (10) 64 67 16 90
Fax: [Int + 86] (10) 64 67 16 91



Deutsche Grove GmbH
Sales and Service
Helmholtzstrasse 12, Postfach 5026
D-40750 Langenfeld, Germany
Tel: [Int + 49] (2173) 8909-0
Fax: [Int + 49] (2173) 8909-30

Grove Product Support
Western Hemisphere
1086 Wayne Avenue
Chambersburg, Pennsylvania USA
Tel: [Int + 1] (717) 263-5100
Fax: [Int + 1] (717) 267-0404



Wilhelmshaven Works
Industriegelände West, Postfach 1853
D-26358 Wilhelmshaven, Germany
Tel: [Int + 49] (4421) 294-0
Fax: [Int + 49] (4421) 294-301

Europe, Africa, Middle East, Asia/Pacific
Sunderland SR4 6TT, England
Tel: [Int + 44] 191 565-6281
Parts Fax: [Int + 44] 191 510-9242
Service Fax: [Int + 44] 191 510-9560

<http://www.grovetworldwide.com>

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