

GROVE®

GMK4100B**product
guide****features**

- 36-167 ft. (11.1-51 m) 6-section full power Mega Form boom with Twin Lock pinning
- 28.5-49 ft. (8.7-15 m) hydraulic offset bifold swingaway
- 1 x 19.7 ft. (6 m) intermediate lattice insert
- 42,500 lb. (19.3 t) counterweight with hydraulic removal system
- Mercedes-Benz OM 501 LA, 390 hp (290 kW), torque 1365 ft./lb. (1850 Nm)
- MEGATRAK independent hydro-pneumatic suspension

**contents**

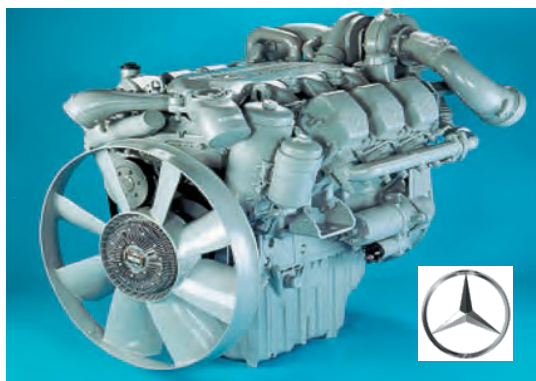
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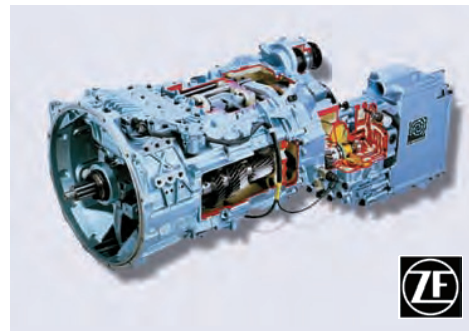
All Terrain Crane

features

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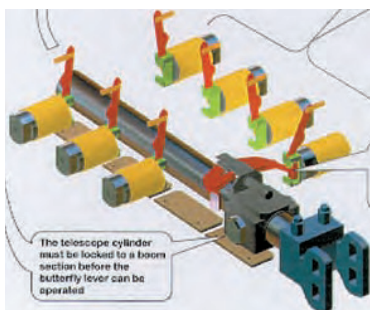


Mercedes-Benz OM501LA
390 bhp (290 kW) @ 1800 rpm
1365 ft./lb. torque (1850 Nm) @ 1080 rpm



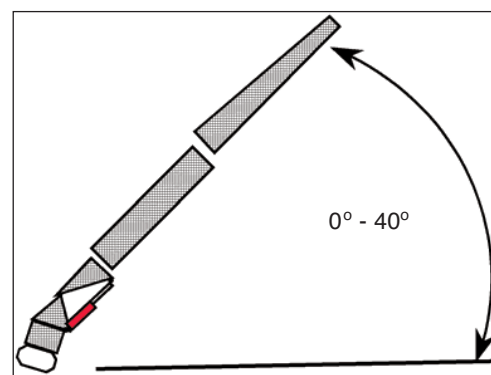
ZF AS Tronic
12 speeds fwd, 2 rev

TWIN-LOCK™
Boom pinning
mechanism
automatically pins
the sections in
position using two
horizontal large
diameter boom
pins



LUFFING BI-FOLD SWINGAWAY

Hydraulically offset lattice bi-fold swingaway lets the operator set the offset from 0°-40° while under load, from the superstructure cab



MEGATRAK™
Independent
suspension and
all wheel steer
system allows
wheels to
remain on the
ground at all
times so
stresses and
weight are not
continually
transferred
between axles

GMK4100B

GROVE



specifications

Superstructure



Boom

36 ft. - 167 ft. (11.1 m - 51 m) six section, full power Mega Form boom with Twin Lock Pinning. Maximum tip height: 177 ft. (54 m)



Boom Nose

Six 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 -3° to +82°.



Hydraulic Offsettable Lattice Extension

28.5 ft. - 49 ft. (8.7 m - 15 m) bifold lattice swingaway extension, hydraulically offsettable and luffing under load from 0° - 40°. Maximum tip height: 226 ft. (69 m)



*Offsettable Lattice Extension

28.5 ft.-49 ft. (8.7 m - 15 m) bifold lattice swingaway extension, manually offsettable at 0°, 20° and 40°. Maximum tip height: 226 ft. (69 m)



*Lattice Extensions

One 19.7 ft. (6 m) insert for use with lattice swingaway extension to increase length to 69 ft. (21 m). Maximum tip height: 246 ft. (75 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 suspension, opening windows at side and rear, hinged windshield with wiper, sun visor and window shade. Other features include diesel heater/defroster, armrest integrated crane controls, drive/steer controls and ergonomically arranged instrumentation.



Control System

Full electronic control of crane functions using control levers with automatic reset to zero. Integrated with the LMI and engine management systems by CAN-BUS. ECOS system with graphic display.



Swing

Two axial piston planetary gear boxes with fixed displacement motors. Infinitely variable to 1.8 rpm. Free swing with holding (rocker switch) and service (foot pedal) brake.



Counterweight

42,500 lbs. (19.3 t) consisting of various sections with hydraulic installation/removal system controlled from the superstructure cab.



Hydraulic System

2 separate circuits, 1 axial piston variable displacement pump (load sensing) with electronic power limiting control and 1 gear pump for swing. Thermostatically controlled oil coolers keep oil at optimum operating temperature.

Tank capacity: 180 gal. (680 l)



Hoist

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

	Main	Auxiliary
Line length:	720 ft. (220 m)	720 ft. (220 m)
Rope diameter:	16 mm	16 mm
Line speed:	410 ft./min. (125 m/min)	410 ft./min. (125 m/min)
Line pull:	11,240 lbs. (50 kN)	11,240 lbs. (50 kN)

*Denotes optional equipment

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GROVE

specifications

Carrier

4

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. 19.7" (500 mm) square. Outriggers can be set in four positions:

Full	- 23' (7 m)
Partial	- 19.7' (6 m)
Partial	- 16.4' (5 m)
Retracted	- 7.6' (2.3 m)

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

Engine

Mercedes-Benz OM 501 LA, 6 cylinder, water cooled, turbo-charged, with 390 bhp (290 kW) @ 1800 rpm.

Max. Torque 1,365 ft./lb. (1 850 Nm) @ 1080 rpm.

Compression and exhaust brakes.

Engine emissions: EUROMOT/EPA/CARB (off road)

Fuel Tank Capacity

106 gallons (400 L).

Transmission

ZF, AS Tronic, 12 speeds forward, 2 reverse. 2 speed transfer case.

Drive/Steer

8 x 6 x 8

Axles

1st axle line - drive/steer

2nd axle line - steer (optional drive)

3rd axle line - drive/steer (connects for all-wheel steer)

4th axle line - drive/steer

Drive axles with planetary hub reduction and center mounted 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 6.7" (170 mm) or lowered 5" (130 mm) both longitudinally and transversely. Features an automatic leveling system for highway travel.

Tires

8 tires, 16.00R25 (Vehicle width – 9.0' [2.75 m])

Steering

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

Brakes

Service brakes: pneumatic dual circuit acting on all wheels. Standard anti-lock brake system (ABS).

Parking brake: pneumatically operated spring loaded brake acting on axle lines 2 & 4.

Air dryer.

Cab

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

Electrical System

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

Maximum Speed

53 mph (85 km/h).

Gradeability (Theoretical)

70% with 14.00 tires.

63% with 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

- * Work lights, mounted on boom base section
- * Boom mounted aircraft warning light
- * Radio/CD player for superstructure cab
- * Stainless steel exhaust system with spark arrestor
- * Air-conditioning
- * Hook blocks/Headache Ball
- * 14.00R25 tires (vehicle width 8.4 ft. [2.55 m])
- * 20.5R25 tires (vehicle width 9.5 ft. [2.88 m])
- * 8x8x8 drive/steer
- * Electric driveline retarder
- * Engine-independent diesel cab heater, with engine pre-heater
- * Timer for diesel heater
- * Strobe light
- * Working range limiter
- * Work lights for outriggers
- * Data logger
- * Spare tire and wheel with carry bracket
- * Aluminum edging for decking
- * Rear mounted stowage box
- * Outrigger pad load indicator
- * Denotes optional equipment

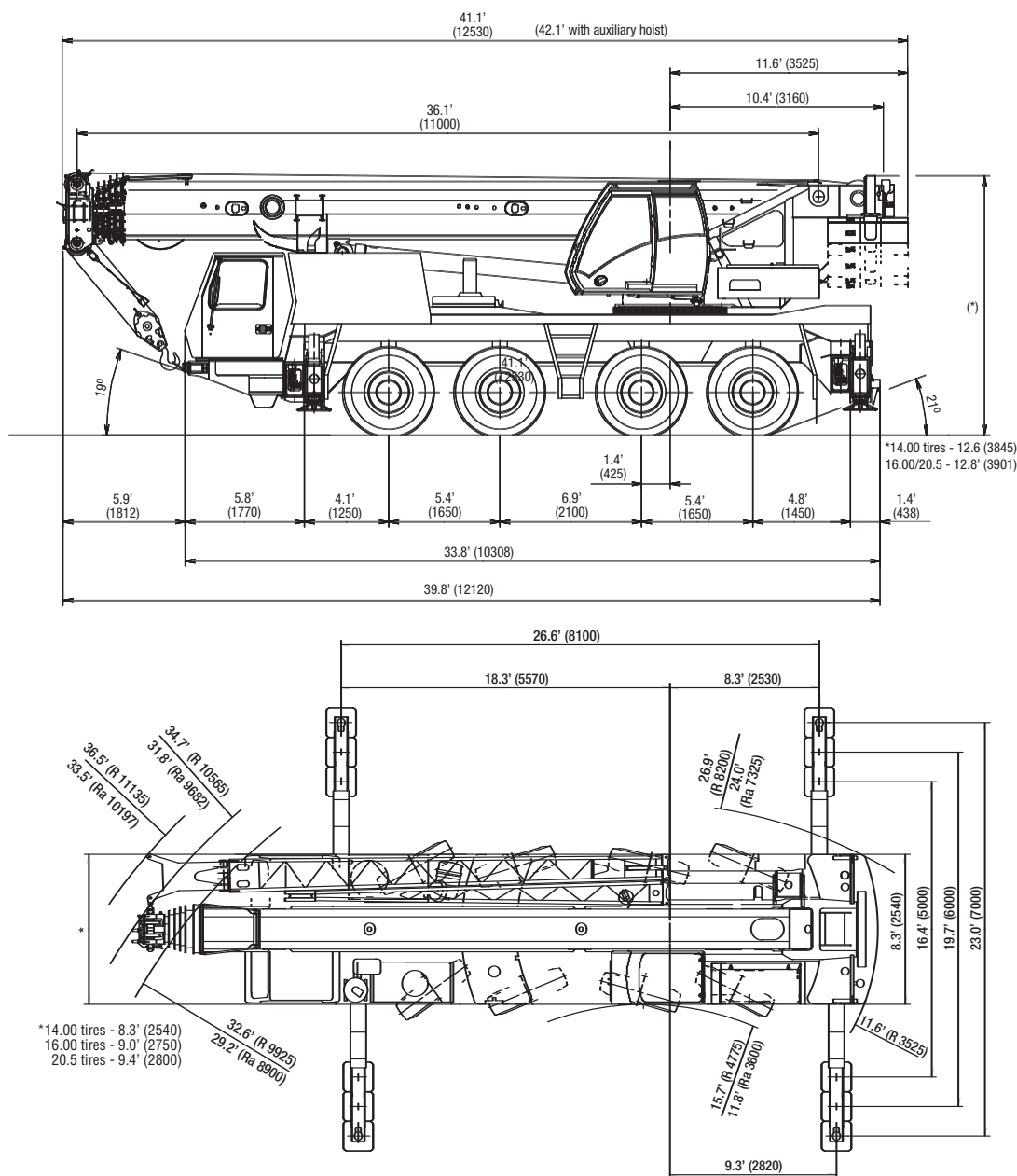
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dimensions

5



Basic Weights - lb. (kg.)

Axes 1 & 2

Axes 3 & 4

Total

Mercedes power, 28.5 - 49 ft. hydraulic offset swingaway, 16.00R25 tires, 8x6x8 drive/steer, auxiliary boom nose, main and auxiliary hoists with rope, 2,866 lb. (1300 kg.) counterweight slab bolted to superstructure and 5,511 lb. (2500 kg) counterweight slab clamped to the superstructure.	41,978	(19041)	55,268	(25069)	97,246	(44110)
Substitutions						
14.00R25 tires plus decking	-584	(-265)	-584	(-265)	-1,168	(-530)
20.5R25 tires plus decking	370	(168)	370	(168)	741	(336)
8X8X8 drive/steer	584	(265)	165	(75)	750	(340)
Additions:						
14.00R25 spare tire with bracket	-452	(-205)	1036	(470)	584	(265)
16.00R25 spare tire with bracket	-560	(-254)	1,276	(579)	717	(325)
20.5R25 spare tire with bracket	-642	(-291)	1,451	(658)	809	(367)
Brackets for swingaway	205	(93)	-62	(-28)	143	(65)
Hydraulic hose reel for swingaway	276	(125)	-143	(-65)	132	(60)
28.5 - 49 ft. swingaway (hydraulic or manual offset)	2,745	(1245)	-794	(-360)	1,951	(885)
Electric driveline retarder	-73	(-33)	646	(293)	573	(260)
5,511 lb. (2 500 kg.) counterweight slab on superstructure	-3,653	(-1657)	8,988	(4077)	5,335	(2420)
5,511 lb. (2 500 kg.) counterweight baseplate on carrier deck	5,029	(2281)	571	(259)	5,600	(2540)
11,023 lb. (5 000 kg.) counterweight slab on superstructure	-7,337	(-3328)	18,051	(8188)	10,714	(4860)
11,023 lb. (5 000 kg.) counterweight slab on carrier deck	9,623	(4365)	1,091	(495)	10,714	(4860)
Removals:						
Outrigger floats (front and rear)	-148	(-67)	-161	(-73)	-309	(-140)
Auxiliary boom nose	-313	(-142)	181	(82)	-132	(-60)

GMK 4100B

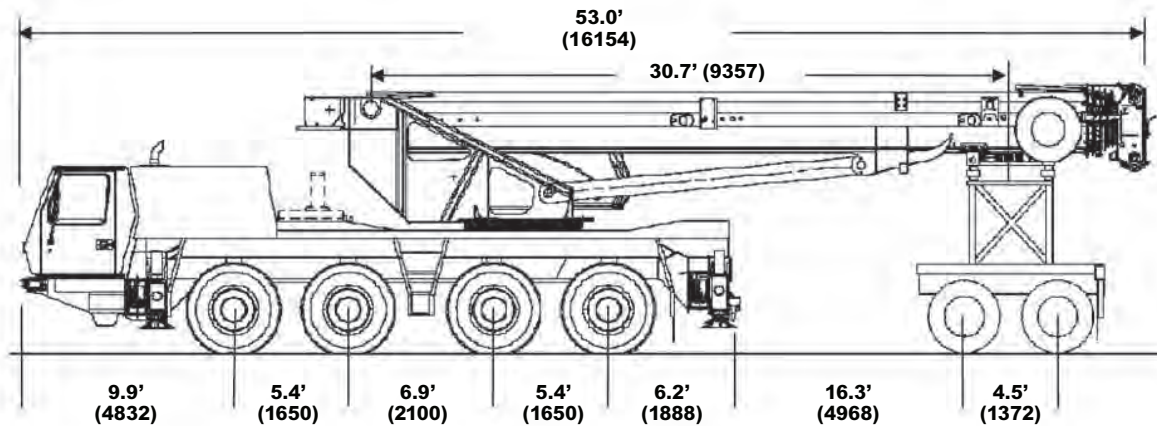
GROVE



trailing boom proposal

Trailing Boom

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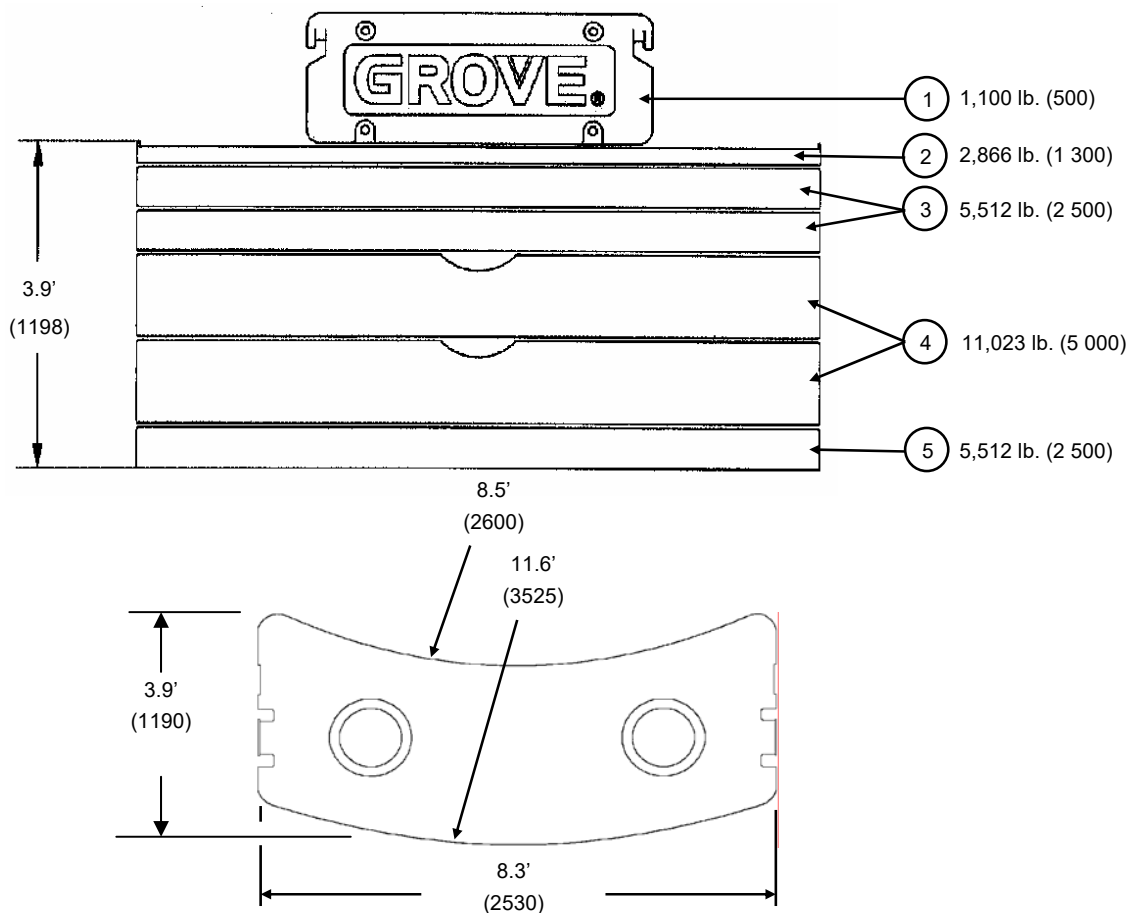
Basic Weights - lb. (kg.)	Axes 1 & 2		Axes 3 & 4		Dolly	Total
Mercedes power, 16.00 tires, 8x6x8 drive/steer, outrigger pads stowed, auxiliary hoist, 49 ft. swingaway stowed, additional oil cooler, 2,866 lb. (1300 kg.) counterweight slab bolted to superstructure, 5,511 lb. (2500 kg) counterweight slab clamped to the superstructure and 6000 lb. dolly.	50,480 (22898)		28,029 (12714)		21,515 (9759)	100,024 (45371)
Additions:						
14.00R25 tires	-529	(-240)	-529	(-240)	-	-1,058 (-480)
20.5R25 tires	370	(168)	370	(168)	-	740 (336)
8x8x8 drive/steer	584	(265)	165	(75)	-	750 (340)
Counterweight in place of auxiliary hoist	-340	(-154)	137	(62)	-	-203 (-92)
Remove:						
Hydraulic hose reel	4	(2)	0	0	-137 (-62)	-132 (-60)
Brackets for swingaway	-22	(-10)	-11	(-5)	-110 (-50)	-143 (-65)
29.5 ft. - 49 ft. (12 - 21 m) swingaway	-403	(-183)	-179	(-81)	-1369 (-621)	-1951 (-885)
Front and rear outrigger floats	-146	(-66)	-163	(-74)	-	-309 (-140)
5,511 lb. (2500 kg.) counterweight slab	-4,949	(-2245)	-562	(-255)	-	-5,511 (-2500)
Weight Effect:						
Telescope section 1 extended 1 ft.	-364	(-165)	-161	(-73)	525 (238)	-

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THIS ILLUSTRATION IS ONLY A GUIDE. CONSULT FACTORY FOR SPECIFIC DETAILS.

GROVE

counterweight



Counterweight Configurations

lb.(kg.)	1	2	3	4	5
3,900 (1 800)	x	x			
9,400 (4 300)	x	x			x
14,900 (6 800)	x	x	x		x
20,500 (9 300)	x	x		x	x
26,000 (11 800)	x	x	x	x	x
31,500 (14 300)	x	x		2x	x
37,000 (16 800)	x	x	x	2x	x
42,500 (19 300)	x	x	2x	2x	x

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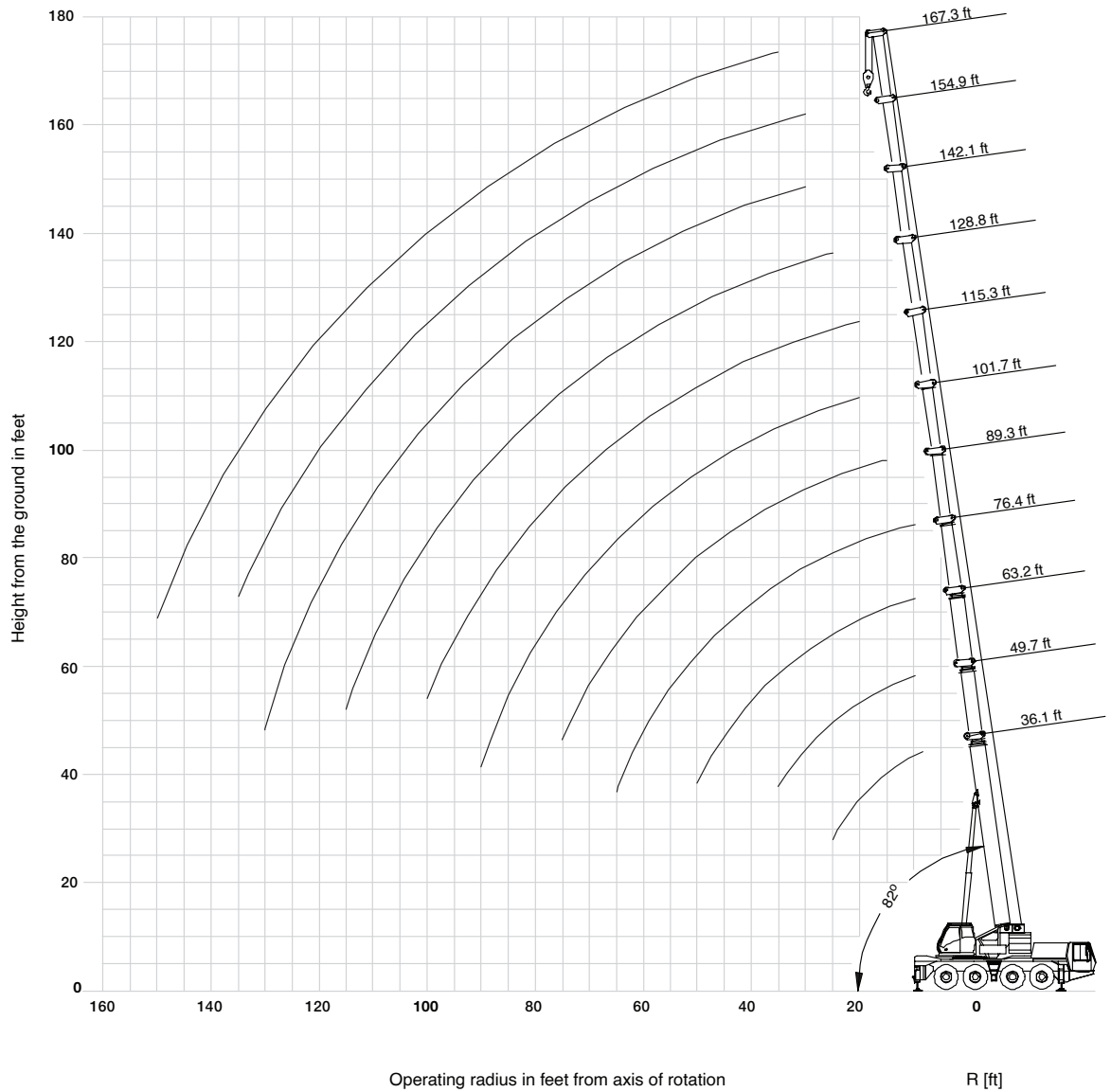
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working range

36'-167' main boom

8



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GROVE



load charts


36-167 ft.
(11.1-51 m)


42,500 lbs.
(19,278 kg)


100%
23' spread


360°



Pounds x 1000

9

Feet	36.1'	49.7'	63.2'	76.4'	89.3'	101.7'	115.3'	128.8'	142.1'	154.9'	167.3'	Feet
8	* 200.0											8
10	154.0	132.0	123.0	109.0								10
15	114.0	109.0	102.0	95.0	80.0							15
20	92.0	90.0	87.0	81.0	76.0	61.0	45.0					20
25	71.0	73.0	73.0	67.0	66.0	58.0	45.0	33.8				25
30		59.0	56.0	56.0	52.0	51.0	41.8	33.8	25.4	19.6		30
35		47.0	48.0	45.0	45.0	42.2	37.8	33.0	25.4	19.6	15.8	35
40			38.8	38.0	38.0	35.6	33.4	30.4	25.4	19.6	15.8	40
45			32.4	32.6	32.6	30.4	28.6	27.6	25.4	19.6	15.8	45
50			27.4	28.8	28.4	26.4	25.2	23.8	23.6	19.6	15.8	50
55				24.8	24.4	23.0	23.6	20.8	20.6	19.4	15.8	55
60				21.6	21.4	20.4	20.8	18.2	18.2	18.2	15.8	60
65				19.2	18.8	19.0	18.6	16.6	16.0	16.2	15.6	65
70					16.6	17.4	16.6	15.6	14.6	14.4	14.8	70
75					14.6	15.6	14.6	14.8	13.6	13.4	13.2	75
80						14.0	13.0	13.4	12.8	12.4	11.8	80
85						12.4	11.6	12.0	12.0	11.4	10.8	85
90						9.4	10.4	10.8	10.8	10.6	9.6	90
95							9.2	9.8	9.8	9.6	8.8	95
100							8.4	9.0	8.8	8.6	7.8	100
105								8.4	8.0	7.8	7.0	105
110								7.8	7.4	7.0	6.4	110
115								4.2	6.8	6.2	5.6	115
120									6.0	5.6	5.0	120
125									3.4	5.0	4.4	125
130									2.8	4.4	3.8	130
135										4.0	3.4	135
140											2.8	140
145											2.4	145
150											2.0	150

* Over the rear with special equipment

Loads above 130,000 lb. require additional equipment

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GROVE



load charts



36-167 ft.
(11.1-51 m)



37,000 lbs.
(16,783 kg)



100%
23' spread



360°

10



Pounds x 1000

Feet	36.1'	49.7'	63.2'	76.4'	89.3'	101.7'	115.3'	128.8'	142.1'	154.9'	167.3'	Feet
10	154.0	132.0	123.0	109.0								10
15	114.0	109.0	102.0	95.0	80.0							15
20	92.0	90.0	87.0	81.0	76.0	61.0	45.0					20
25	71.0	72.0	68.0	65.0	62.0	58.0	45.0	33.8				25
30		57.0	54.0	52.0	51.0	48.0	41.8	33.8	25.4	19.6		30
35		44.0	45.0	42.6	42.4	39.6	37.2	33.0	25.4	19.6	15.8	35
40			36.4	36.0	35.6	33.2	31.2	30.0	25.4	19.6	15.8	40
45			30.2	31.6	30.6	28.4	27.0	25.6	25.2	19.6	15.8	45
50			25.6	26.8	26.4	24.4	25.0	22.0	21.8	19.6	15.8	50
55				23.2	22.8	21.4	21.8	19.2	19.0	19.2	15.8	55
60				20.2	19.8	20.2	19.4	17.6	16.6	16.8	15.8	60
65				17.8	17.4	18.2	17.2	16.6	15.6	15.4	15.2	65
70					15.2	16.2	15.2	15.4	14.6	14.4	13.4	70
75					13.4	14.4	13.4	13.8	13.6	13.0	12.0	75
80						12.8	12.0	12.4	12.2	11.8	10.8	80
85						11.4	10.6	11.0	11.0	10.6	9.6	85
90						8.6	9.4	10.2	10.0	9.6	8.6	90
95							8.4	9.4	9.0	8.6	7.8	95
100							7.4	8.6	8.2	7.8	7.0	100
105								7.8	7.4	7.0	6.2	105
110								7.2	6.6	6.2	5.6	110
115								3.4	6.0	5.6	4.8	115
120									5.4	4.8	4.2	120
125									2.6	4.4	3.6	125
130									2.2	3.8	3.2	130
135										3.4	2.6	135
140											2.2	140
145											1.8	145

Loads above 130,000 lb. require additional equipment

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GROVE



load charts


36-167 ft.
(11.1-51 m)


20,500 lbs.
(9,298 kg)


100%
23' spread


360°



Pounds x 1000

11

Feet	36.1'	49.7'	63.2'	76.4'	89.3'	101.7'	115.3'	128.8'	142.1'	154.9'	167.3'	Feet
10	154.0	132.0	123.0	109.0								10
15	114.0	109.0	102.0	95.0	80.0							15
20	85.0	80.0	74.0	67.0	65.0	61.0	45.0					20
25	60.0	58.0	56.0	53.0	52.0	48.0	44.0	33.8				25
30		45.0	43.6	43.2	40.8	37.6	35.0	33.4	25.4	19.6		30
35		34.6	36.6	35.2	33.2	30.8	30.8	27.4	25.4	19.6	15.8	35
40			29.6	29.4	27.6	27.2	25.8	23.6	22.4	19.6	15.8	40
45			24.4	24.8	23.4	23.8	22.0	21.8	20.4	19.0	15.8	45
50			20.6	20.8	20.2	20.6	19.0	18.8	18.6	17.6	15.8	50
55				17.8	17.4	18.0	16.4	16.8	16.4	15.4	14.2	55
60				15.8	14.8	15.8	14.4	15.2	14.4	13.4	12.4	60
65				14.0	12.8	13.6	13.2	13.6	12.8	11.8	10.8	65
70					11.0	12.0	12.2	12.0	11.2	10.4	9.4	70
75					9.6	10.4	11.0	10.8	10.0	9.2	8.2	75
80						9.6	9.8	9.6	9.0	8.2	7.2	80
85						8.8	8.6	8.4	8.0	7.2	6.2	85
90						5.2	7.6	7.4	7.0	6.4	5.4	90
95							6.8	6.6	6.2	5.6	4.6	95
100							4.6	5.8	5.4	4.8	4.0	100
105								5.2	4.6	4.2	3.4	105
110								4.4	4.0	3.6	2.8	110
115									3.4	3.0	2.2	115
120									3.0	2.4	1.8	120
125										2.0		125

Loads above 130,000 lb. require additional equipment

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GROVE



load charts



36-167 ft.
(11.1-51 m)



3,900 lbs.
(1,769 kg)



100%
23' spread



360°

12



Pounds x 1000

Feet	36.1'	49.7'	63.2'	76.4'	89.3'	101.7'	115.3'	128.8'	142.1'	154.9'	167.3'	Feet
10	154.0	132.0	123.0	109.0								10
15	108.0	98.0	87.0	77.0	72.0							15
20	65.0	60.0	58.0	56.0	52.0	47.0	43.4					20
25	44.0	44.0	44.0	41.8	38.8	35.4	32.6	30.8				25
30		34.0	33.8	32.2	30.2	30.2	27.6	27.0	23.4	19.6		30
35		25.8	27.0	26.0	24.2	24.4	22.6	23.0	21.2	18.4	15.8	35
40			21.6	21.8	19.6	20.0	20.0	19.0	17.8	16.4	15.0	40
45			17.4	18.6	16.0	17.0	16.8	15.8	14.8	13.6	12.4	45
50			14.2	15.4	13.8	15.0	14.2	13.4	12.4	11.4	10.2	50
55				12.8	12.4	12.8	12.0	11.4	10.6	9.6	8.4	55
60				10.6	11.0	11.0	10.4	9.8	9.0	8.0	7.0	60
65				9.0	9.2	9.6	9.0	8.4	7.6	6.8	5.8	65
70					7.8	8.0	7.8	7.2	6.4	5.6	4.6	70
75					6.6	6.8	6.6	6.2	5.4	4.8	3.8	75
80						5.8	5.6	5.2	4.6	3.8	3.0	80
85						5.0	4.8	4.6	3.8	3.2	2.2	85
90							4.0	3.8	3.2	2.6		90
95							3.4	3.0	2.6	2.0		95
100								2.6	2.0			100
105								2.0				105
110												110
115												115
120												120
125												125

Loads above 130,000 lb. require additional equipment

GMK4100B

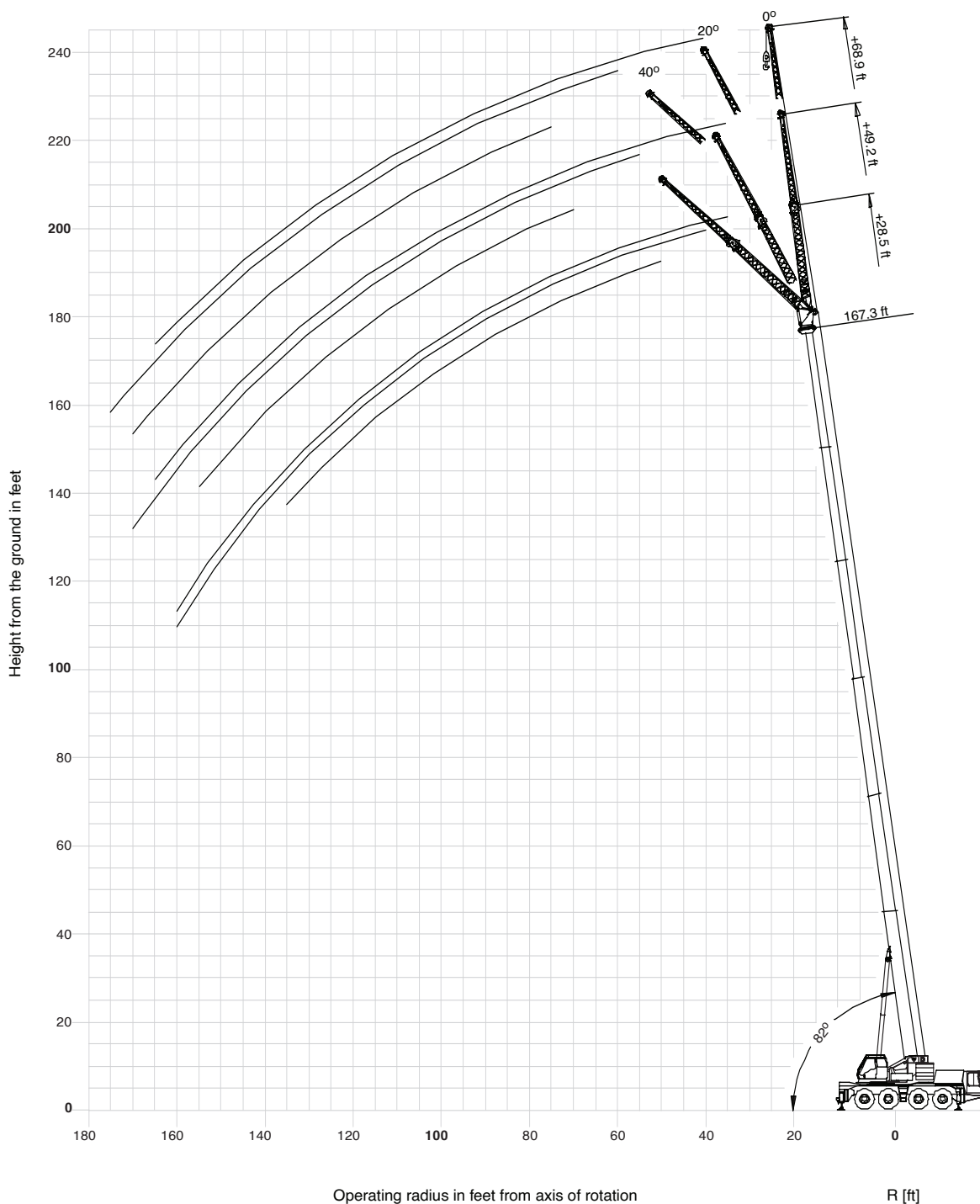
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

GROVE



working range

167.3' main boom with Hydraulic Luffing 28.5 ft., 49.2 ft., and 68.9 ft. Swingaway



GMK 4100B

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GROVE



load charts

14



167 ft.
(51 m)



28.5-49-69 ft.
(8.6-15-21 m)
Hydraulic Luffing



42,500 lbs.
(19,278 kg)



100%
23' spread



360°



Pounds x 1000

167.3' + 28.5'				167.3' + 49'				167.3' + 69'			
Feet	0°	0°-20°	20°-40°	0°	0°-20°	20°-40°		0°	0°-20°	20°-40°	Feet
35	8.6			5.0							35
40	8.6	8.6		5.0				4.2			40
45	8.6	8.6		5.0				4.2			45
50	8.6	8.6	7.4	5.0				4.2			50
55	8.6	8.4	7.4	5.0	5.0			4.2			55
60	8.6	8.4	7.2	5.0	4.8			4.2	4.2		60
65	8.6	8.2	7.2	5.0	4.6			4.2	4.2		65
70	8.6	8.0	7.0	5.0	4.6	3.8		4.2	4.2		70
75	8.6	7.8	7.0	5.0	4.4	3.8		4.2	4.2	3.6	75
80	8.6	7.8	7.0	5.0	4.4	3.6		4.2	4.2	3.6	80
85	8.6	7.6	6.8	5.0	4.2	3.6		4.2	4.2	3.6	85
90	8.6	7.4	6.8	5.0	4.2	3.6		4.2	4.0	3.6	90
95	8.4	7.4	6.8	5.0	4.0	3.6		4.2	4.0	3.4	95
100	7.6	7.2	6.8	5.0	4.0	3.4		4.2	4.0	3.4	100
105	6.8	6.8	6.8	4.8	3.8	3.4		4.2	3.8	3.4	105
110	6.0	6.0	6.6	4.6	3.8	3.4		4.2	3.8	3.4	110
115	5.4	5.4	5.8	4.6	3.8	3.4		4.2	3.8	3.4	115
120	4.8	4.8	5.2	4.4	3.6	3.4		4.2	3.6	3.4	120
125	4.4	4.4	4.6	4.4	3.6	3.4		4.2	3.6	3.4	125
130	3.8	3.8	4.2	4.2	3.6	3.4		4.2	3.6	3.4	130
135	3.4	3.4	3.6	3.8	3.6	3.4		3.8	3.6	3.2	135
140	2.8	2.8		3.4	3.4	3.4		3.2	3.2	3.2	140
145	2.4	2.4		3.0	3.0	3.4		3.0	3.0	3.2	145
150	2.0	2.0		2.6	2.6	3.2		2.6	2.6	3.0	150
155	1.6	1.6		2.2	2.2	2.8		2.2	2.2	2.6	155
160	1.4	1.4		1.8	1.8			1.8	1.8	2.4	160
165				1.6	1.6			1.6	1.6	2.0	165
170										1.6	170

GMK4100B

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GROVE



load charts

167 ft.
(51 m)

28.5-49-69 ft.
(8.6-15-21 m)
Hydraulic Luffing

37,000 lbs.
(16,783 kg)

100%
23' spread

360°



Pounds x 1000

15

167.3' + 28.5'				167.3' + 49'				167.3' + 69'			
Feet	0°	0°-20°	20°-40°	0°	0°-20°	20°-40°		0°	0°-20°	20°-40°	Feet
35	8.6			5.0							35
40	8.6	8.6		5.0				4.2			40
45	8.6	8.6		5.0				4.2			45
50	8.6	8.6	7.4	5.0				4.2			50
55	8.6	8.4	7.4	5.0	5.0			4.2			55
60	8.6	8.4	7.2	5.0	4.8			4.2	4.2		60
65	8.6	8.2	7.2	5.0	4.6			4.2	4.2		65
70	8.6	8.0	7.0	5.0	4.6	3.8		4.2	4.2		70
75	8.6	7.8	7.0	5.0	4.4	3.8		4.2	4.2	3.6	75
80	8.6	7.8	7.0	5.0	4.4	3.6		4.2	4.2	3.6	80
85	8.6	7.6	6.8	5.0	4.2	3.6		4.2	4.2	3.6	85
90	8.2	7.4	6.8	5.0	4.2	3.6		4.2	4.0	3.6	90
95	7.4	7.4	6.8	5.0	4.0	3.6		4.2	4.0	3.4	95
100	6.6	6.6	6.8	5.0	4.0	3.4		4.2	4.0	3.4	100
105	6.0	6.0	6.4	4.8	3.8	3.4		4.2	3.8	3.4	105
110	5.2	5.2	5.8	4.6	3.8	3.4		4.2	3.8	3.4	110
115	4.6	4.6	5.0	4.6	3.8	3.4		4.2	3.8	3.4	115
120	4.2	4.2	4.6	4.4	3.6	3.4		4.2	3.6	3.4	120
125	3.6	3.6	4.0	4.0	3.6	3.4		4.0	3.6	3.4	125
130	3.2	3.2	3.4	3.6	3.6	3.4		3.4	3.4	3.4	130
135	2.6	2.6	3.0	3.2	3.2	3.4		3.0	3.0	3.2	135
140	2.2	2.2		2.8	2.8	3.4		2.6	2.6	3.2	140
145	1.8	1.8		2.4	2.4	3.0		2.2	2.2	2.8	145
150	1.4	1.4		2.0	2.0	2.6		2.0	2.0	2.4	150
155				1.6	1.6	2.2		1.6	1.6	2.2	155
160				1.4	1.4			1.4	1.4	1.8	160
165										1.4	165

GMK4100B

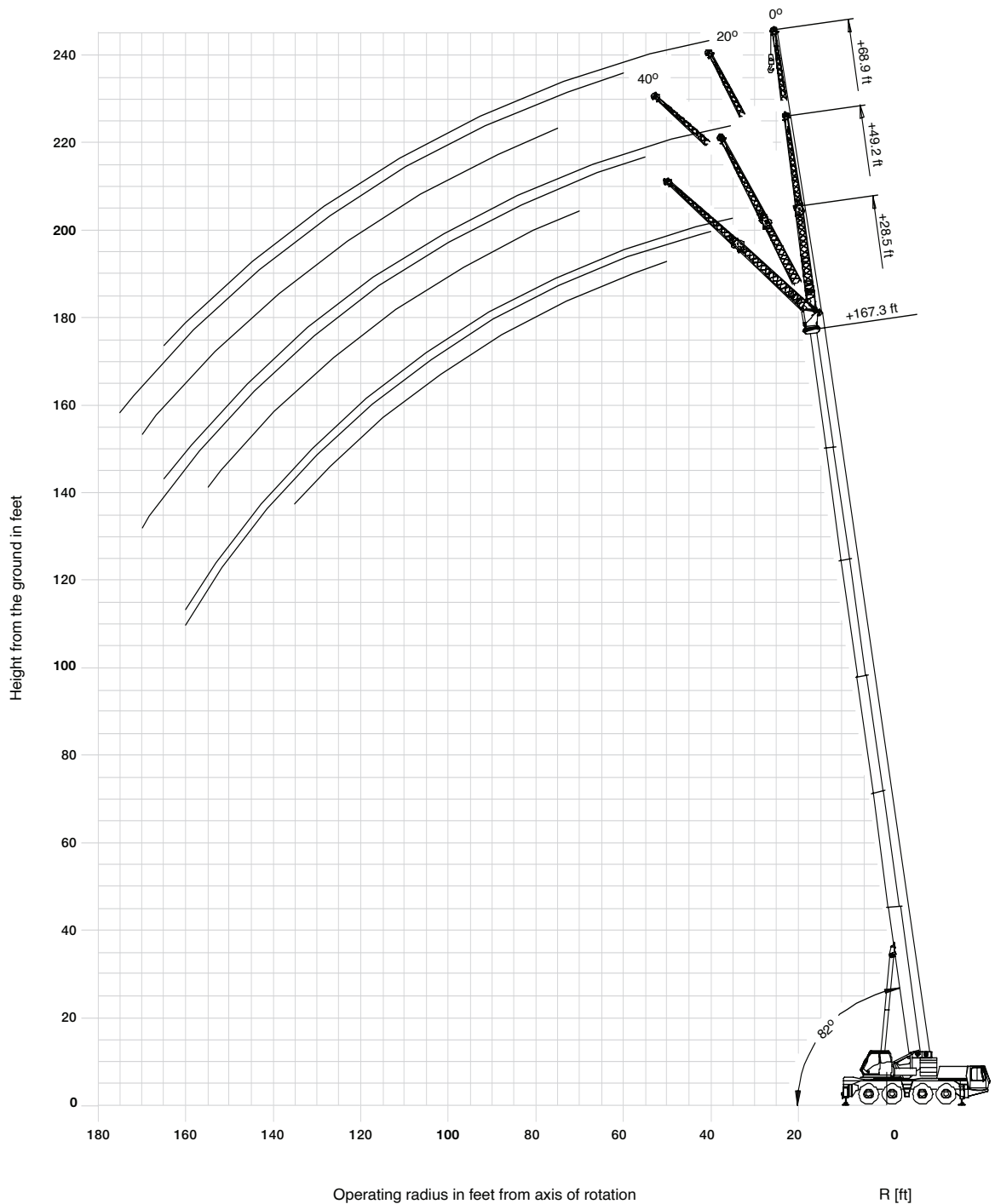
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GROVE

working range

167.3' main boom with Manual Offset 28.5 ft., 49.2 ft., and 68.9 ft Swingaway

16



GMK 4100B

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.

GROVE



load charts



167 ft.
(51 m)



28.5-49-69 ft.
(8.6-15-21 m)
Manual Offset



42,500 lbs.
(19,278 kg)



100%
23' spread



360°



Pounds x 1000

17

167.3' + 28.5'				167.3' + 49'				167.3' + 69'			
Feet	0°	20°	40°	0°	20°	40°		0°	20°	40°	Feet
35	8.6			5.0							35
40	8.6	8.6		5.0				4.2			40
45	8.6	8.6		5.0				4.2			45
50	8.6	8.6	7.4	5.0				4.2			50
55	8.6	8.4	7.4	5.0	5.0			4.2			55
60	8.6	8.4	7.2	5.0	4.8			4.2	4.2		60
65	8.6	8.2	7.2	5.0	4.6			4.2	4.2		65
70	8.6	8.0	7.0	5.0	4.6	3.8		4.2	4.2		70
75	8.6	7.8	7.0	5.0	4.4	3.8		4.2	4.2	3.6	75
80	8.6	7.8	7.0	5.0	4.4	3.6		4.2	4.2	3.6	80
85	8.6	7.6	6.8	5.0	4.2	3.6		4.2	4.2	3.6	85
90	8.6	7.4	6.8	5.0	4.2	3.6		4.2	4.0	3.6	90
95	8.4	7.4	6.8	5.0	4.0	3.6		4.2	4.0	3.4	95
100	7.6	7.2	6.8	5.0	4.0	3.4		4.2	4.0	3.4	100
105	6.8	7.2	6.8	4.8	3.8	3.4		4.2	3.8	3.4	105
110	6.0	6.6	6.8	4.6	3.8	3.4		4.2	3.8	3.4	110
115	5.4	5.8	6.2	4.6	3.8	3.4		4.2	3.8	3.4	115
120	4.8	5.2	5.4	4.4	3.6	3.4		4.2	3.6	3.4	120
125	4.4	4.6	4.8	4.4	3.6	3.4		4.2	3.6	3.4	125
130	3.8	4.2	4.4	4.2	3.6	3.4		4.2	3.6	3.4	130
135	3.4	3.6	3.8	3.8	3.6	3.4		3.8	3.6	3.2	135
140	2.8	3.2		3.4	3.4	3.4		3.2	3.4	3.2	140
145	2.4	2.6		3.0	3.4	3.4		3.0	3.4	3.2	145
150	2.0	2.2		2.6	3.2	3.4		2.6	3.0	3.2	150
155	1.6	1.8		2.2	2.8	3.0		2.2	2.6	3.0	155
160	1.4	1.4		1.8	2.4			1.8	2.4	2.6	160
165				1.6	2.0			1.6	2.0	2.2	165
170					1.6				1.6	1.8	170
175									1.4		175

GMK4100B

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GROVE



load charts

18



167 ft.
(51 m)



28.5-49-69 ft.
(8.6-15-21 m)
Manual Offset



37,000 lbs.
(16,783 kg)



100%
23' spread



360°



Pounds x 1000

167.3' + 28.5'				167.3' + 49'				167.3' + 69'			
Feet	0°	20°	40°	0°	20°	40°		0°	20°	40°	Feet
35	8.6			5.0							35
40	8.6	8.6		5.0				4.2			40
45	8.6	8.6		5.0				4.2			45
50	8.6	8.6	7.4	5.0				4.2			50
55	8.6	8.4	7.4	5.0	5.0			4.2			55
60	8.6	8.4	7.2	5.0	4.8			4.2	4.2		60
65	8.6	8.2	7.2	5.0	4.6			4.2	4.2		65
70	8.6	8.0	7.0	5.0	4.6	3.8		4.2	4.2		70
75	8.6	7.8	7.0	5.0	4.4	3.8		4.2	4.2	3.6	75
80	8.6	7.8	7.0	5.0	4.4	3.6		4.2	4.2	3.6	80
85	8.6	7.6	6.8	5.0	4.2	3.6		4.2	4.2	3.6	85
90	8.2	7.4	6.8	5.0	4.2	3.6		4.2	4.0	3.6	90
95	7.4	7.4	6.8	5.0	4.0	3.6		4.2	4.0	3.4	95
100	6.6	7.2	6.8	5.0	4.0	3.4		4.2	4.0	3.4	100
105	6.0	6.4	6.8	4.8	3.8	3.4		4.2	3.8	3.4	105
110	5.2	5.8	6.0	4.6	3.8	3.4		4.2	3.8	3.4	110
115	4.6	5.0	5.4	4.6	3.8	3.4		4.2	3.8	3.4	115
120	4.2	4.6	4.8	4.4	3.6	3.4		4.2	3.6	3.4	120
125	3.6	4.0	4.2	4.0	3.6	3.4		4.0	3.6	3.4	125
130	3.2	3.4	3.6	3.6	3.6	3.4		3.4	3.6	3.4	130
135	2.6	3.0	3.2	3.2	3.6	3.4		3.0	3.6	3.2	135
140	2.2	2.6		2.8	3.4	3.4		2.6	3.2	3.2	140
145	1.8	2.0		2.4	3.0	3.2		2.2	2.8	3.2	145
150	1.4	1.6		2.0	2.6	2.8		2.0	2.4	2.8	150
155		1.4		1.6	2.2	2.4		1.6	2.2	2.4	155
160				1.4	1.8			1.4	1.8	2.0	160
165					1.4				1.4	1.8	165
170										1.4	170

GMK4100B

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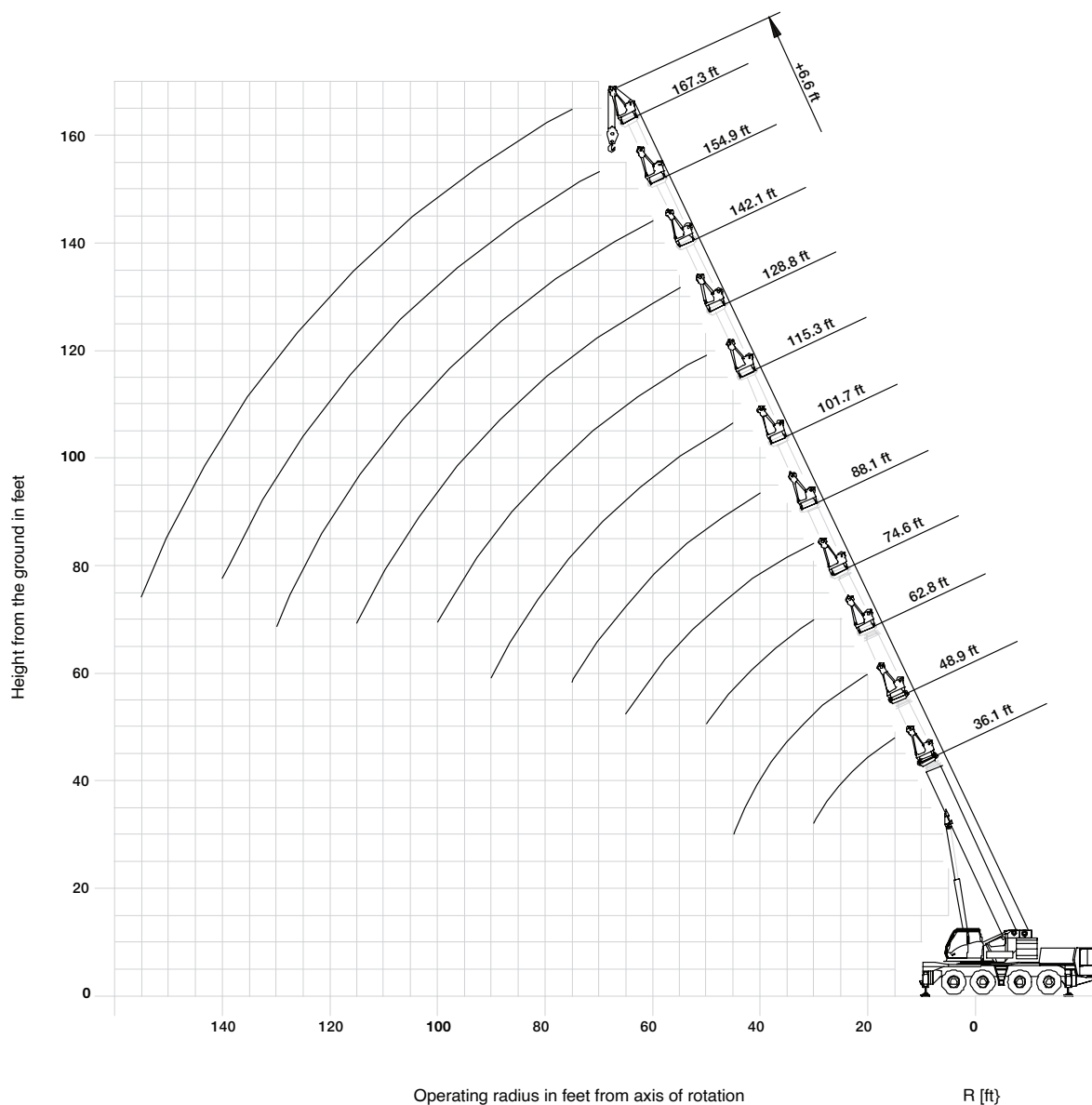
GROVE



working range

Heavy Duty Jib – 6.6 ft

19



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.

GMK4100B

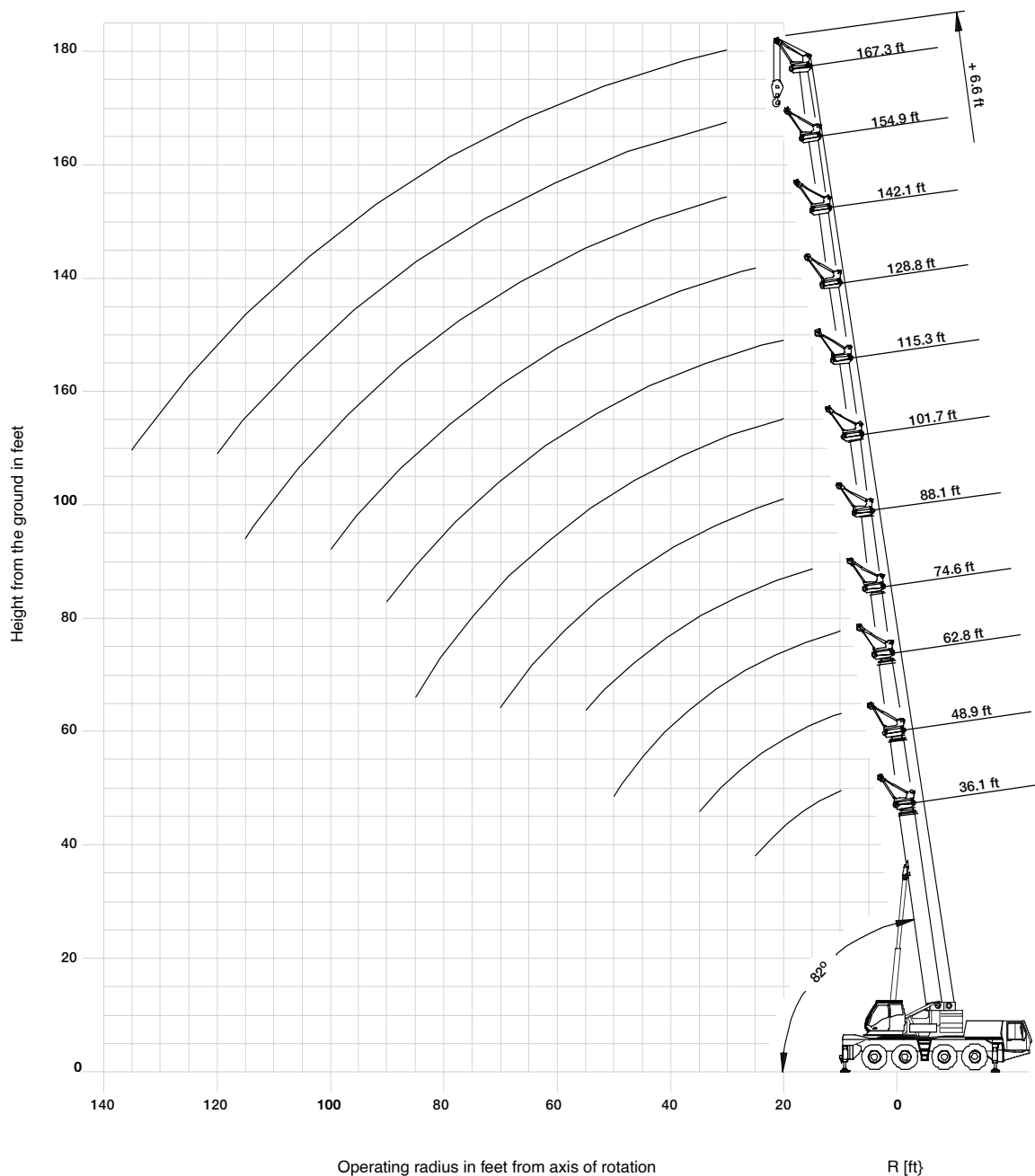
GROVE



working range

Heavy Duty Jib – 6.6 ft

20



GMK4100B

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.

GROVE



load charts

- 
36-167 ft.
(11.1-51 m)
- 
6.6 ft.
(2 m)
- 
42,500 lbs.
(19,278 kg)
- 
100%
23' spread
- 
360°



Pounds x 1000

21

36.1' + 6.6'			74.6' + 6.6'			128.8' + 6.6'			167.3' + 6.6'		
Feet	0°	40°	0°	40°	0°	40°	0°	40°	0°	40°	Feet
10		22.0									10
15	22.0	22.0		22.0							15
20	22.0	22.0		22.0							20
25	22.0	22.0		22.0		22.0					25
30	22.0		22.0	22.0		22.0		12.2			30
35			22.0	22.0		22.0		12.2			35
40			22.0	22.0		22.0		12.2			40
45			22.0	22.0		22.0		12.2			45
50			22.0	22.0		22.0		12.2			50
55			22.0	22.0	20.6	21.0		12.2			55
60			22.0		18.0	18.6		12.2			60
65			19.4		16.0	16.4		12.2			65
70					14.0	14.4		12.2			70
75					12.4	12.8	12.8	12.2			75
80					11.2	11.4	11.4	11.8			80
85					10.4	10.4	10.2	10.6			85
90					9.6	9.6	9.2	9.6			90
95					8.8	8.8	8.4	8.6			95
100					8.4	8.4	7.4	7.6			100
105					7.8		6.8	7.0			105
110					7.4		6.0	6.2			110
115					7.0		5.4	5.4			115
120							4.6	4.8			120
125							4.0	4.2			125
130							3.6	3.6			130
135							3.0	3.2			135
140							2.6				140
145							2.2				145
150							1.8				150
155							1.4				155
160											160

GMK4100B

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.

GROVE



load charts



36-167 ft.
(11.1-51 m)



6.6 ft.
(2 m)



37,000 lbs.
(16,783 kg)



100%
23' spread



360°

22



Pounds x 1000

36.1' + 6.6'		74.6' + 6.6'		128.8' + 6.6'		167.3' + 6.6'		Feet
0°	40°	0°	40°	0°	40°	0°	40°	
10	22.0							10
15	22.0	22.0						15
20	22.0	22.0						20
25	22.0	22.0						25
30	22.0							30
35		22.0	22.0			12.2		35
40		22.0	22.0			12.2		40
45		22.0	22.0			12.2		45
50		22.0	22.0			12.2		50
55		22.0	22.0	19.0	19.4	12.2		55
60		20.4		16.6	17.0	12.2		60
65		18.0		14.6	15.0	12.2		65
70				12.8	13.2	12.2		70
75				12.0	11.8	11.6	12.0	75
80				11.2	11.2	10.4	10.6	80
85				10.4	10.4	9.2	9.6	85
90				9.6	9.6	8.2	8.6	90
95				8.8	8.8	7.4	7.6	95
100				8.4	8.4	6.6	6.8	100
105				7.6		5.8	6.0	105
110				7.0		5.2	5.4	110
115				6.2		4.6	4.8	115
120						4.0	4.2	120
125						3.4	3.6	125
130						2.8	3.0	130
135						2.4	2.6	135
140						2.0		140
145						1.6		145
150								150

GMK4100B

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.

GROVE

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



Boom Nose



Oil



Boom Extension



Hydraulic System



Speed



Hoist



Grade



Radius



Extension



Boom Length



Gear



Hookblock

23

GMK4100B

GROVE



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