

# Grove GMK5165-2

## Product Guide

ASME B30.5  
Imperial 85%



### Features

- 130 t (165 USt) capacity
- 12,9 m - 60 m (42 ft - 197 ft) six-section full power MEGAFORM™ boom with TWIN-LOCK™ pinning
- 11 m - 18 m (36 ft - 59 ft) bi-fold lattice swingaway, hydraulic luffing or manual offset
- 3,6 m (12 ft) three-sheave heavy duty jib, hydraulic luffing integrated in swingaway
- 375 kW (503 hp) Mercedes OM 502 LA 8-cylinder turbo-charged diesel engine. Daimler Chrysler, 16-speed G240-16 transmission. Two-stage transfer case
- MEGATRAK™ independent hydro-pneumatic suspension

# Features

## MEGATRAK™

The MEGATRAK™ suspension system is the best off road driveline available on the market today. The system's versatility and performance allows the GMK5135 to operate as a true all-terrain crane. The 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. MEGATRAK™ provides true ground clearance where others just raise the chassis.

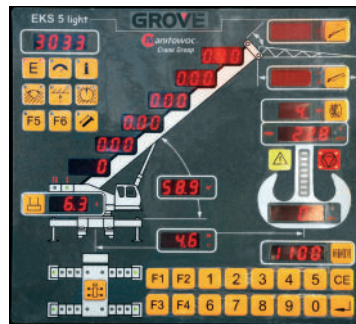
Other benefits of the MEGATRAK™ system are:

- A reliable suspension system
- Excellent job site maneuverability with all-wheel steering
- Commonality among almost all models
- A driveline that remains aligned at all times
- A steering linkage system that is protected against damage
- Constant tire contact for equal tire wear
- Reduced maintenance



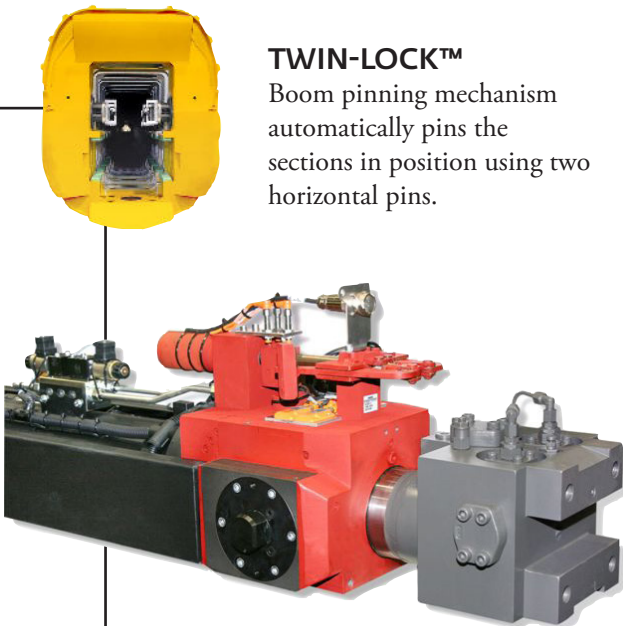
## EKS 5 Light

Monitoring the lifting condition of the crane at all times EKS works together with, but independently of the ECOS as a complete command and control system or separately as a load moment indicator.



## TWIN-LOCK™

Boom pinning mechanism automatically pins the sections in position using two horizontal pins.



## CraneSTAR

CraneSTAR is an exclusive and innovative crane asset management system that helps improve your profitability and reduce costs by remotely monitoring critical crane data. Visit [www.cranestar.com](http://www.cranestar.com) for more information.

## ECOS

Electronic Crane Operating System - ECOS enables control of the entire crane's principle operations. Simple programming eases lift planning and a supply of essential information allows full concentration on the lift itself.



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# Specifications

## Superstructure



### Boom

12,9 m - 60,0 m (42 ft - 197 ft) six-section, full power MEGAFORM™ boom with patented TWIN-LOCK™ boom pinning system.

Maximum tip height: 63 m (207 ft).



### Boom nose

Eight 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 +83°.



### Hydraulic offsettable lattice extension

11 m - 18 m (36 ft - 59 ft) bi-fold lattice swingaway extension **hydraulically offsettable** and luffing under load: 0° - 40°. Controlled from the crane cab. Maximum tip height: 81 m (266 ft)



### \*Offsettable lattice extension

11 m - 18 m (36 ft - 59 ft) bi-fold lattice swingaway extension manually offset: 0°, 20° or 40°. Maximum tip height: 81 m (266 ft)



### Lattice inserts

One 8 m (26 ft) and one 6 m (20 ft) insert for use with lattice swingaway extension. Increases extension length to 26 m (85 ft) or 32 m (105 ft).



### Load moment and 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 with acoustical lining, tinted safety glass, adjustable operator's seat, opening windows in side and cab rear, hinged front window with wiper, sun visor and window shade. Other features include hot water heater, armrest integrated crane controls, and ergonomically arranged instrumentation.



### Crane control system

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



### Swing

Two planetary gears with axial piston motors. Infinitely variable to 1.5 rpm. Holding and service brake.



### Counterweight

40 100 kg (88,400 lb) consisting of various sections with hydraulic installation/removal system. Controlled from the superstructure cab.



### Engine

Mercedes-Benz OM 924 LA four-cylinder, turbo charged diesel engine 129 kW (173 bhp). Stainless steel exhaust on Tier 4i.

Engine emission: EUROMOT 3b/EPA/CARB/Tier 4i off-highway. (EUROMOT/EPA/CARB Tier III (non-road) available for outside North America.



### Fuel tank capacity

200 L (53 gal)



### Hydraulic system

Two separate circuits, one axial piston variable displacement pump (load sensing) with electronic power limiting control and one gear pump for swing. Dual thermostatically controlled oil coolers keep oil at optimum operating temperature. Tank capacity: 840 L (222 gal)



# Specifications

## Superstructure continued



### 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              |
|----------------|------------------------|------------------------|
| Line length:   | 255 m<br>(837 ft)      | 225 m<br>(738 ft)      |
| Rope diameter: | 19 mm                  | 19 mm                  |
| Line speed:    | 120 m/min<br>(394 fpm) | 120 m/min<br>(394 fpm) |
| Line pull:     | 70 kN<br>(15,700 lb)   | 70 kN<br>(15,700 lb)   |



### Electrical system

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

### \*Optional hook blocks

| Lifting capacity   | Sheaves | Weight               | Parts of line | Possible load with the crane* |
|--------------------|---------|----------------------|---------------|-------------------------------|
| 100 t<br>(110 USt) | 7       | 1150 kg<br>(2535 lb) | 2-15          | 100 t<br>(110 USt)            |
| 75 t<br>(83 USt)   | 5       | 850 kg<br>(1873 lb)  | 2-11          | 75 t<br>(83 USt)              |
| 50 t<br>(55 USt)   | 3       | 675 kg<br>(1488 lb)  | 1-7           | 49 t<br>(54 USt)              |
| 20 t*<br>(22 USt)  | 1       | 325 kg<br>(716 lb)   | 1-3           | 20 t<br>(22 USt)              |
| 8 t**<br>(8.8 USt) | H/B     | 200 kg<br>(440 lb)   | 1             | 7 t<br>(7.7 USt)              |

\* Required for overhaul of single part line with boom/jib lengths in excess of 60 m (196.9 ft)

\*\*Overhaul weight designed for a maximum of 60 m (196.9 ft) boom/jib lengths

### \*Optional equipment

- ▶ 3,6 m (11.8 ft) side-stowed three-sheave heavy-duty jib integrated in swingaway.
- ▶ Work light, mounted on top of base section.
- ▶ Cab controlled work lights mounted to top of base section.
- ▶ Stainless steel exhaust system with spark arrestor in lieu of standard.
- ▶ Engine independent diesel cab heater, also serves as engine pre-heater including 24-hour timer.

- ▶ Engine independent propane gas cab heater.
- ▶ Stereo/radio CD player.
- ▶ Outrigger pad load indicator with readout both in superstructure cab and carrier.
- ▶ Air conditioning.
- ▶ Working range limiter.
- ▶ Boom mounted aircraft warning light.
- ▶ Drive and steer control for superstructure.
- ▶ EKS5 with full graphic display.

## 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, 600 mm (23.6 in) square. Outriggers can be set in five positions:

|            |                 |
|------------|-----------------|
| Full:      | 7,5 m (24.6 ft) |
| Partial:   | 6,7 m (22.0 ft) |
|            | 5,9 m (19.4 ft) |
|            | 5,1 m (16.7 ft) |
| Retracted: | 2,5 m (8.2 ft)  |

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



### Engine

Mercedes-Benz OM 502 LA eight cylinder, water cooled, turbo-charged, with 375 kW (503 bhp) at 1800 rpm. Max. torque 2400 Nm (1770 ft/lb) at 1300 rpm.

Engine emissions: EUROMOT/EPA/CARB Tier 4i (non-road)

Compression and exhaust brakes.



### Fuel tank capacity

400 L (106 gal)



### Transmission

Daimler Chrysler, 16 speed G240-16 with EPS (Electric Pneumatic Shifting) and two-stage transfer case.

# Specifications

## Carrier continued



### Drive/steer

10x6x10



### Axles

1st axle line – steer

2nd axle line – drive/steer

3rd axle line – steer (additional drive)

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

Exclusive MEGATRAK™ suspension. Independent hydro-pneumatic system acting on all wheels with hydraulic lockout. Suspension can be raised 170 mm (6.5 in) or lowered 130 mm (5 in) both longitudinally and transversely. Features an automatic leveling system for highway travel.



### Tires

10 tires, 445/95 R25 (16.00 R25).

Vehicle width 3,00 m (9.8 ft)



### 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.



### Brakes

Service brakes: pneumatic dual circuit acting on all wheels, anti lock prevention.

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

Air dryer.



## Cab

Two-man construction with the following features: safety glass, driver seat with suspension, power windows, heated rear view mirrors, engine independent diesel cab heater with 24-hour timer, AC, complete instrumentation and driving controls.

ECOS control of suspension, drive connect and disconnect, inter-axle locks, differential locks and all-wheel steer.



## Electrical system

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



## Maximum speed

85 km/h (53 mph)



## Gradeability (theoretical)

60% - 14.00 R25 tires

54% - 16.00/20.5 R25 tires

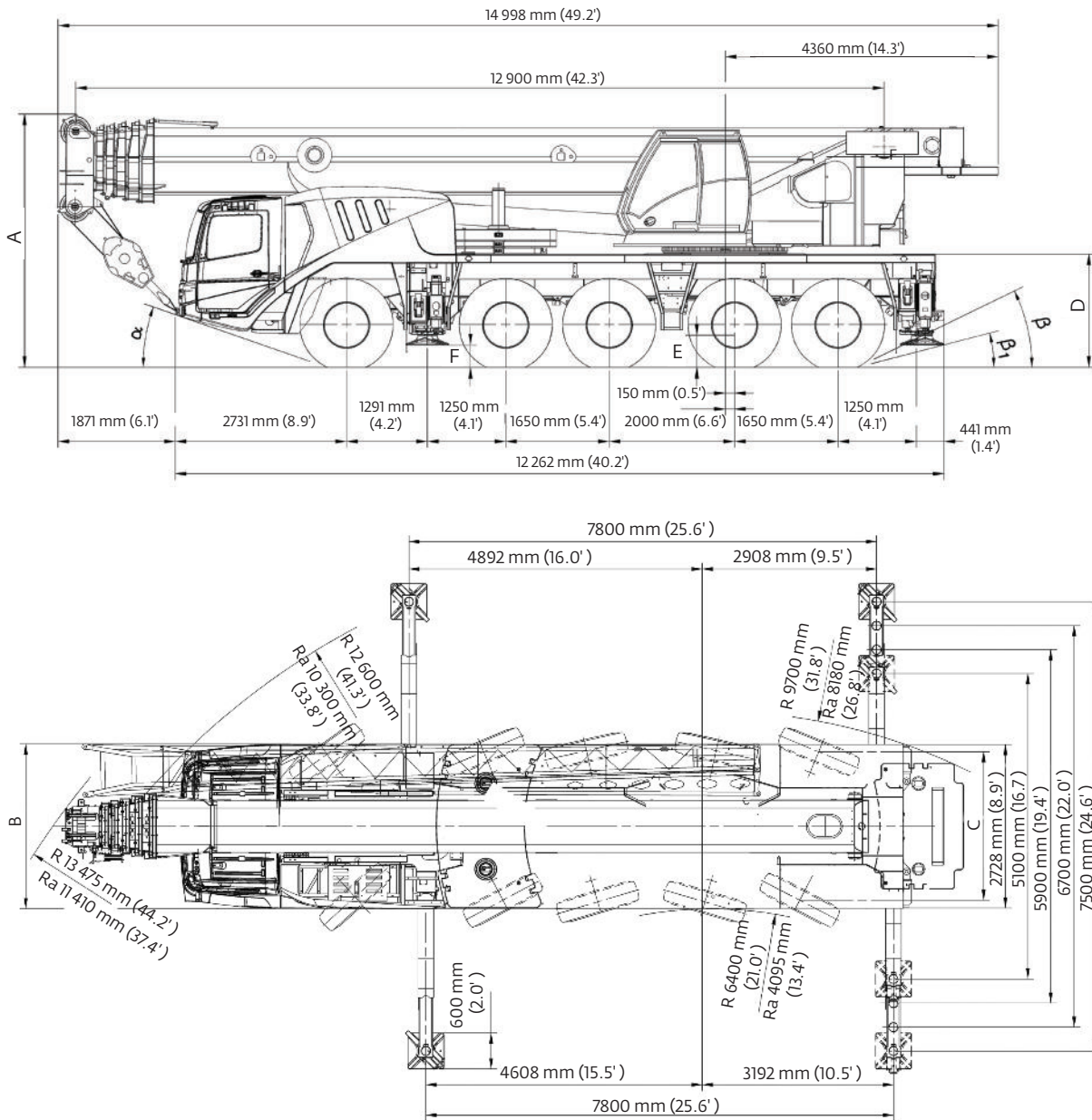
## Miscellaneous standard equipment

Work light; tool kit; fire extinguisher; auxiliary boom nose; radio/CD player in carrier cab, cruise control, wind speed indicator and working lights for each outrigger beam, CraneSTAR asset management system.

## \*Optional equipment

- ▶ Stainless steel exhaust system with spark arrestor
- ▶ 385/95 R25 tires (14.00 R25) (vehicle width, 2,75 m [9 ft])
- ▶ 525/80 R25 tires (20.5 R25) (vehicle width, 3,1 m [10.2 ft])
- ▶ 10x8x10 drive/steer
- ▶ Electric driveline retarder
- ▶ Steel outrigger floats
- ▶ Spare tire with carry bracket
- ▶ Outrigger pad load indicator
- ▶ Hinged bunk bed
- ▶ Trailer and towing hitches
- ▶ Additional strobe lights
- ▶ Rear mounted stowage box
- ▶ Optional engine: Tier III Mercedes-Benz OM 502 LA, 390 Kw (513 bhp) at 1800 rpm. Max torque 2400 Nm at 1300 rpm (non-road)

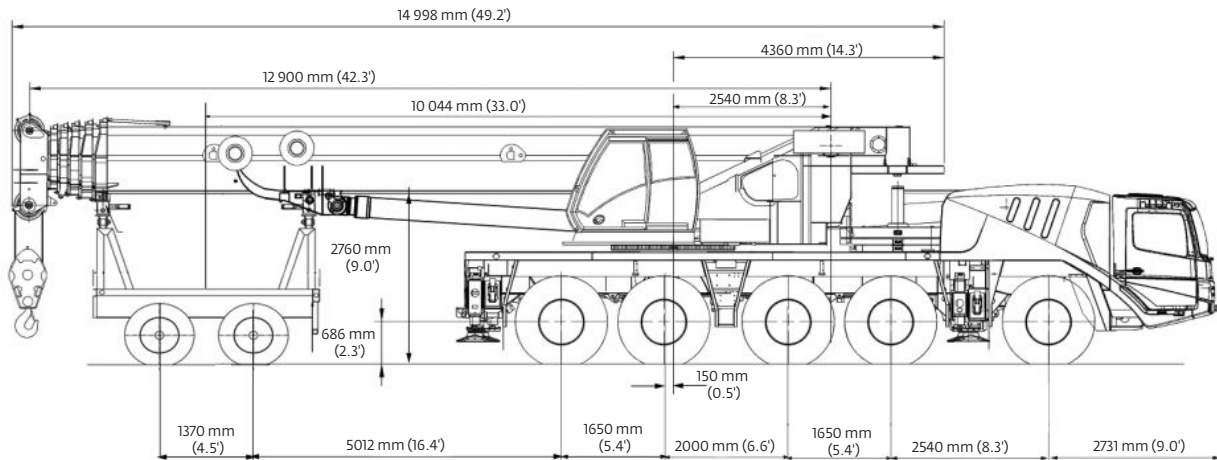
## Dimensions



|  | A               | A<br>*130 mm<br>(5.1") | B               | C              | D              | E             | F             | α   | β   | β1  |
|-------------------------------------------------------------------------------------|-----------------|------------------------|-----------------|----------------|----------------|---------------|---------------|-----|-----|-----|
| 14.00 R25                                                                           | 3945<br>(12.9') | 3815<br>(12.5')        | 2750<br>(9.0')  | 2338<br>(7.7') | 1750<br>(5.7') | 435<br>(1.4') | 356<br>(1.2') | 18° | 23° | 17° |
| 16.00 R25                                                                           | 3995<br>(13.1') | 3865<br>(12.7')        | 3000<br>(9.8')  | 2486<br>(8.2') | 1800<br>(5.9') | 485<br>(1.6') | 386<br>(1.3') | 20° | 25° | 19° |
| 20.5 R25                                                                            | 3995<br>(13.1') | 3865<br>(12.7')        | 3100<br>(10.2') | 2507<br>(8.2') | 1800<br>(5.9') | 485<br>(1.6') | 386<br>(1.3') | 20° | 25° | 19° |

Ra = Radius all wheels steered  
\*Lowered

# Weight proposals

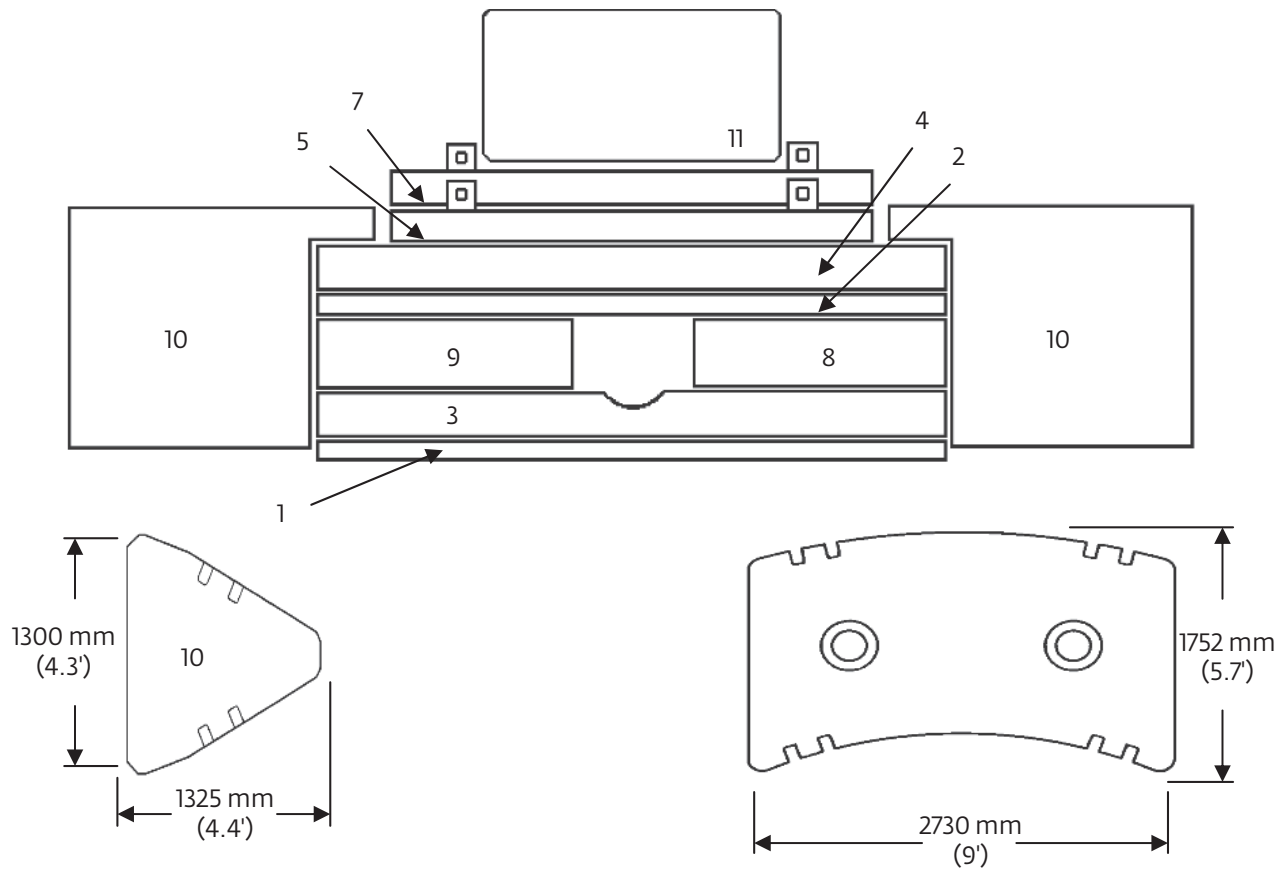


| Basic weights - kg (lb)                                                                                                                                                                                                                        | Axles 1 and 2 |          | Axles 3-5 |          | 2 Dolly axles |          | Total  |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|-----------|----------|---------------|----------|--------|-----------|
| GMK5165-2 Mercedes-Benz power Tier 4i with:<br>16.00R25 tires, 10x8x10 drive/steer, 36 ft - 59 ft hydraulic luffing swingaway, 2nd oil cooler, outrigger pads, auxiliary hoist, driver and tanks filled, 2 axle boom dolly (2994 kg [6600 lb]) | 18 251        | (40,237) | 22 269    | (49,093) | 14 343        | (31,620) | 54 863 | (120,950) |
| <b>Additions:</b>                                                                                                                                                                                                                              |               |          |           |          |               |          |        |           |
| 2500 kg (5500 lb) section on superstructure or carrier (1,2,5,7)                                                                                                                                                                               | 1896          | (4180)   | 604       | (1332)   |               |          | 2500   | (5512)    |
| 5000 kg (11,000 lb) section stowed on carrier (3,4)                                                                                                                                                                                            | 3792          | (8360)   | 1208      | (2663)   |               |          | 5000   | (11,023)  |
| 2 x 3750 kg (2 x 8300 lb) section stowed on carrier (8+9)                                                                                                                                                                                      | 5689          | (12,542) | 1811      | (3993)   |               |          | 7500   | (16,535)  |
| <b>Removals:</b>                                                                                                                                                                                                                               |               |          |           |          |               |          |        |           |
| Brackets for hydraulic swingaway                                                                                                                                                                                                               | -13           | (-29)    | -12       | (-26)    | -61           | (-134)   | -86    | (-190)    |
| Hose reel + parts for hydraulic swingaway                                                                                                                                                                                                      | -7            | (-15)    | -6        | (-13)    | -196          | (-432)   | -210   | (-463)    |
| 11 m - 18 m (36 ft - 59 ft) hydraulic swingaway                                                                                                                                                                                                | -197          | (-434)   | -171      | (-377)   | -1376         | (-3034)  | -1744  | (-3845)   |
| Front outriggers                                                                                                                                                                                                                               | -1379         | (-3040)  | -6        | (-13)    |               |          | -1385  | (-3053)   |
| Rear outriggers                                                                                                                                                                                                                                | 926           | (2041)   | -2400     | (-5291)  |               |          | -1474  | (-3250)   |
| Front and rear outrigger floats                                                                                                                                                                                                                | -37           | (-82)    | -163      | (-359)   |               |          | -200   | (-441)    |
| <b>Substitutions:</b>                                                                                                                                                                                                                          |               |          |           |          |               |          |        |           |
| 10x6x10 drive/steer                                                                                                                                                                                                                            | -43           | (-95)    | -65       | (-143)   |               |          | -108   | (-238)    |
| 14.00R25 tires                                                                                                                                                                                                                                 | -240          | (-529)   | -360      | (-794)   |               |          | -600   | (-1323)   |
| 16.00R25 tires                                                                                                                                                                                                                                 | 172           | (379)    | 258       | (569)    |               |          | 430    | (948)     |

| Boom over front                                                                                                                                                                         |               |           |           |          |         |           |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|----------|---------|-----------|--|--|
| Basic weights - kg (lb)                                                                                                                                                                 | Axles 1 and 2 |           | Axles 3-5 |          | Total   |           |  |  |
| GMK5165-2 Mercedes-Benz power Tier 4i with:<br>16.00R25 tires, 10x6x10 drive/steer, 2nd oil cooler, outrigger pads, auxiliary hoist, driver and tanks filled, 20 t hook block on bumper | 19 990        | (44,070)  | 29 922    | (65,967) | 49 912  | (110,037) |  |  |
| <b>Additions:</b>                                                                                                                                                                       |               |           |           |          |         |           |  |  |
| 10x8x10 drive/steer                                                                                                                                                                     | 43            | (95)      | 65        | (143)    | 108     | (238)     |  |  |
| Electric driveline retarder                                                                                                                                                             | -74           | (-163)    | 334       | (736)    | 260     | (573)     |  |  |
| Spare wheel 14.00 R25 XGC steel rim with stowage                                                                                                                                        | -198          | (-437)    | 457       | (1008)   | 259     | (571)     |  |  |
| Spare wheel 16.00 R25 XGC steel rim with stowage                                                                                                                                        | -244          | (-538)    | 563       | (1241)   | 319     | (703)     |  |  |
| Spare wheel 20.5 R25 XGC steel rim with stowage                                                                                                                                         | -277          | (-611)    | 639       | (1409)   | 362     | (798)     |  |  |
| Brackets for hydraulic swingaway                                                                                                                                                        | 82            | (181)     | 4         | (9)      | 86      | (190)     |  |  |
| Hose reel + parts for hydraulic swingaway                                                                                                                                               | 301           | (664)     | -91       | (-201)   | 210     | (463)     |  |  |
| 11 m-18 m (36 ft - 59 ft) hydraulic swingaway                                                                                                                                           | 1968          | (4339)    | -224      | (-494)   | 1744    | (3845)    |  |  |
| Auxiliary boom nose                                                                                                                                                                     | 149           | (328)     | -79       | (-174)   | 70      | (154)     |  |  |
| 5000 kg (11,000 lb) slab fixed to turntable (special counterweight version)                                                                                                             | -2759         | (-6083)   | 7759      | (17,106) | 5000    | (11,023)  |  |  |
| 2500 kg (5500 lb) section pinned to superstructure (5,7)                                                                                                                                | -1862         | (-4105)   | 4362      | (9617)   | 2500    | (5512)    |  |  |
| 2500 kg (5500 lb) section stowed on carrier (1,2)                                                                                                                                       | 1896          | (4180)    | 604       | (1332)   | 2500    | (5512)    |  |  |
| 5000 kg (11,000 lb) section stowed on carrier (3,4)                                                                                                                                     | 3793          | (8362)    | 1207      | (2661)   | 5000    | (11,023)  |  |  |
| 2 x 3760 kg (2 x 8300 lb) section stowed on carrier (8,9)                                                                                                                               | 5689          | (12,542)  | 1811      | (3993)   | 7500    | (16,535)  |  |  |
| <b>Substitutions:</b>                                                                                                                                                                   |               |           |           |          |         |           |  |  |
| 14.00R25 tires                                                                                                                                                                          | -240          | (-529)    | -360      | (-794)   | -600    | (-1323)   |  |  |
| 20.5R25 tires                                                                                                                                                                           | 172           | (379)     | 258       | (569)    | 430     | (948)     |  |  |
| <b>Removals:</b>                                                                                                                                                                        |               |           |           |          |         |           |  |  |
| Boom assembly                                                                                                                                                                           | -11 677       | (-25,743) | -3541     | (-7807)  | -15 218 | (-33,550) |  |  |
| Front outriggers                                                                                                                                                                        | -1379         | (-3040)   | -6        | (-13)    | -1385   | (-3053)   |  |  |
| Rear outriggers                                                                                                                                                                         | 926           | (2041)    | -2400     | (-5291)  | -1474   | (-3250)   |  |  |
| Front and rear outrigger floats                                                                                                                                                         | -37           | (-82)     | -163      | (-359)   | -200    | (-441)    |  |  |



# Counterweight

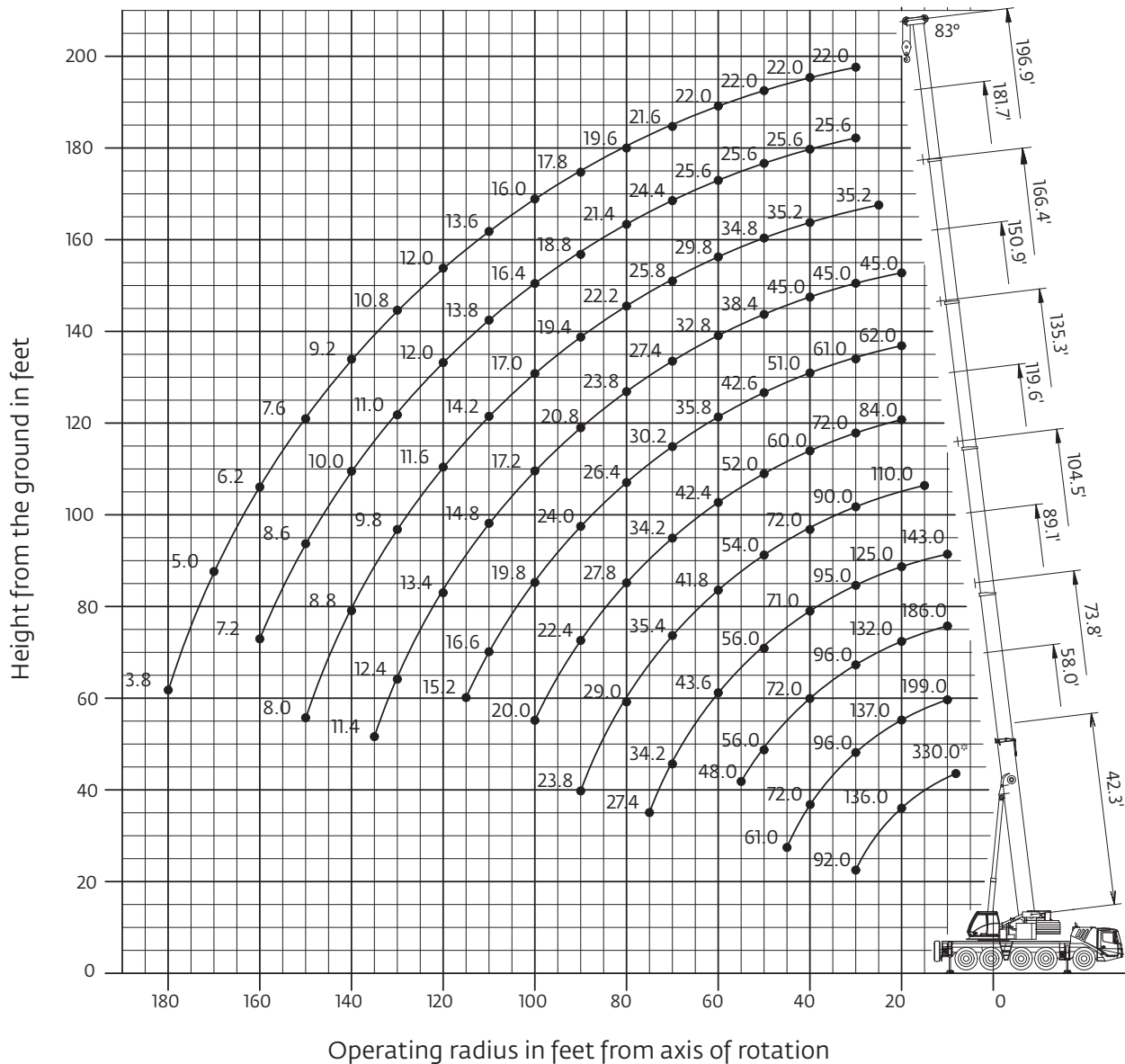


- |                                 |                                                       |
|---------------------------------|-------------------------------------------------------|
| 1. 2500 kg (5500 lb) baseplate  | 7. 2500 kg (5500 lb) pinned                           |
| 2. 2500 kg (5500 lb) stacking   | 8. 3750 kg (8300 lb) stacking                         |
| 3. 5000 kg (11,000 lb) stacking | 9. 3750 kg (8300 lb) stacking                         |
| 4. 5000 kg (11,000 lb) stacking | 10. 5770 kg (12,700 lb) wing                          |
| 5. 2500 kg (5500 lb) pinned     | 11. 1000 kg (2200 lb) bolted (auxiliary hoist or IPO) |

|                                     | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 | 11 |
|-------------------------------------|---|---|---|---|---|---|---|---|----|----|
| Counterweight configuration kg (lb) |   |   |   |   |   |   |   |   |    |    |
| 1000 (2200)                         |   |   |   |   |   |   |   |   |    | •  |
| 3500 (7700)                         |   |   |   |   |   | • |   |   |    | •  |
| 6000 (13,200)                       |   |   |   |   | • | • |   |   |    | •  |
| 8500 (18,700)                       | • |   |   |   | • | • |   |   |    | •  |
| 11 000 (24,200)                     | • |   |   |   |   |   | • | • |    | •  |
| 13 500 (29,700)                     | • |   |   |   |   | • | • | • |    | •  |
| 16 000 (35,200)                     | • |   |   |   | • | • | • | • |    | •  |
| 18 500 (40,700)                     | • |   | • |   |   | • | • | • |    | •  |
| 21 000 (46,200)                     | • |   | • |   | • | • | • | • |    | •  |
| 23 500 (51,800)                     | • | • | • |   | • | • | • | • |    | •  |
| 26 000 (57,300)                     | • |   | • | • | • | • | • | • |    | •  |
| 28 500 (62,800)                     | • | • | • | • | • | • | • | • |    | •  |
| 40 100 (88,400)                     | • | • | • | • | • | • | • | • | 2x | •  |

# Working range

42 ft -197 ft main boom



|  | Hook block                        | H                 |
|-------------------------------------------------------------------------------------|-----------------------------------|-------------------|
|                                                                                     | 100 USt, 7 sheave                 | 3160 mm (10.4 ft) |
|                                                                                     | 80 USt, 5 sheave                  | 3070 mm (10.1 ft) |
|                                                                                     | 45 USt, 3 sheave                  | 3000 mm (9.8 ft)  |
|                                                                                     | 20 USt, 1 sheave                  | 2770 mm (9.1 ft)  |
|                                                                                     | 12 USt, single line headache ball | 2350 mm (7.7 ft)  |

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

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

# Load charts

## Main boom

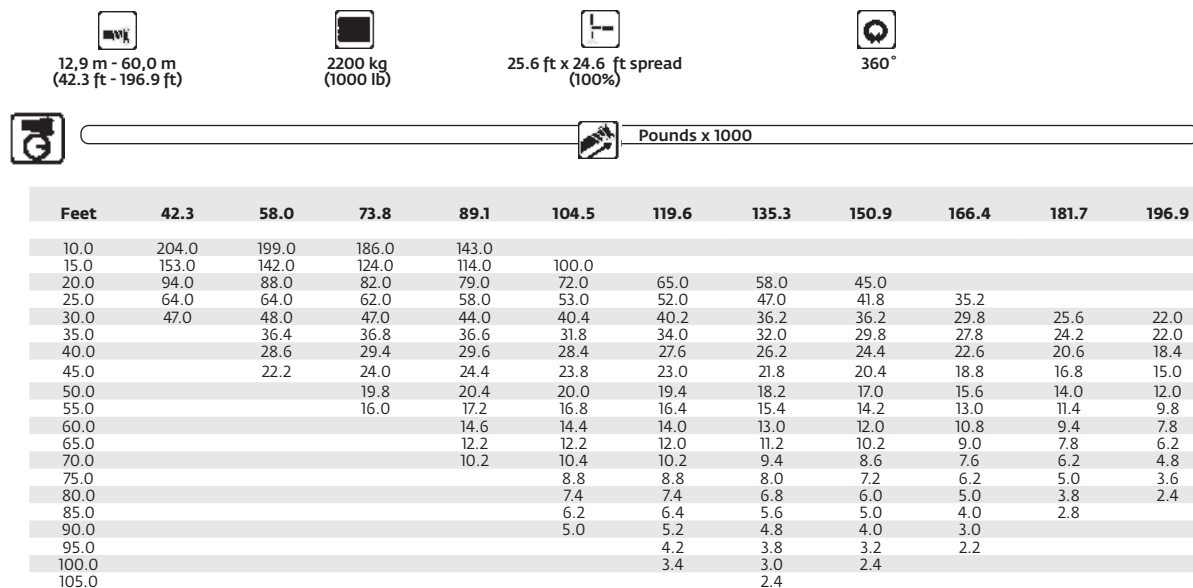
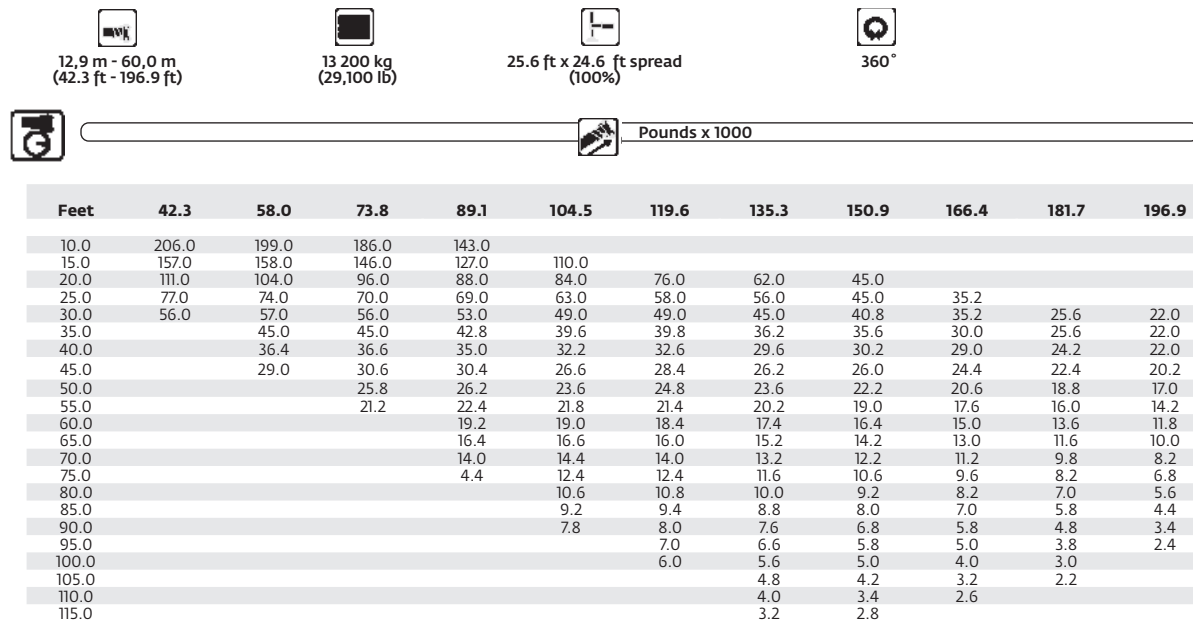
|  |                |  |  |       |       |       |       |       |       |       |       |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 12.9 m - 60.0 m<br>(42.3 ft - 196.9 ft)                                           | 40 100 kg<br>(88,400 lb)                                                                        | 25.6 ft x 24.6 ft spread<br>(100%)                                                | 360°                                                                                |       |       |       |       |       |       |       |       |
|  |  Pounds x 1000 |                                                                                   |                                                                                     |       |       |       |       |       |       |       |       |
| Feet                                                                              | 42.3                                                                                            | 58.0                                                                              | 73.8                                                                                | 89.1  | 104.5 | 119.6 | 135.3 | 150.9 | 166.4 | 181.7 | 196.9 |
| 8.0                                                                               | 330.0*                                                                                          |                                                                                   |                                                                                     |       |       |       |       |       |       |       |       |
| 10.0                                                                              | 215.0                                                                                           | 199.0                                                                             | 186.0                                                                               | 143.0 |       |       |       |       |       |       |       |
| 15.0                                                                              | 168.0                                                                                           | 165.0                                                                             | 154.0                                                                               | 143.0 | 110.0 |       |       |       |       |       |       |
| 20.0                                                                              | 136.0                                                                                           | 137.0                                                                             | 132.0                                                                               | 125.0 | 108.0 | 84.0  | 62.0  | 45.0  |       |       |       |
| 25.0                                                                              | 113.0                                                                                           | 114.0                                                                             | 114.0                                                                               | 110.0 | 98.0  | 78.0  | 62.0  | 45.0  | 35.2  |       |       |
| 30.0                                                                              | 92.0                                                                                            | 96.0                                                                              | 96.0                                                                                | 95.0  | 90.0  | 72.0  | 61.0  | 45.0  | 35.2  | 25.6  | 22.0  |
| 35.0                                                                              |                                                                                                 | 83.0                                                                              | 83.0                                                                                | 82.0  | 82.0  | 66.0  | 56.0  | 45.0  | 35.2  | 25.6  | 22.0  |
| 40.0                                                                              |                                                                                                 | 72.0                                                                              | 72.0                                                                                | 71.0  | 72.0  | 60.0  | 51.0  | 45.0  | 35.2  | 25.6  | 22.0  |
| 45.0                                                                              |                                                                                                 | 61.0                                                                              | 63.0                                                                                | 62.0  | 62.0  | 56.0  | 47.0  | 41.4  | 35.2  | 25.6  | 22.0  |
| 50.0                                                                              |                                                                                                 |                                                                                   | 56.0                                                                                | 56.0  | 54.0  | 52.0  | 42.6  | 38.4  | 34.8  | 25.6  | 22.0  |
| 55.0                                                                              |                                                                                                 |                                                                                   | 48.0                                                                                | 50.0  | 47.0  | 48.0  | 39.2  | 35.6  | 32.4  | 25.6  | 22.0  |
| 60.0                                                                              |                                                                                                 |                                                                                   |                                                                                     | 43.6  | 41.8  | 42.4  | 35.8  | 32.8  | 29.8  | 25.6  | 22.0  |
| 65.0                                                                              |                                                                                                 |                                                                                   |                                                                                     | 38.4  | 37.6  | 38.0  | 32.6  | 29.8  | 27.8  | 25.6  | 22.0  |
| 70.0                                                                              |                                                                                                 |                                                                                   |                                                                                     | 34.2  | 35.4  | 34.2  | 30.2  | 27.4  | 25.8  | 24.4  | 21.6  |
| 75.0                                                                              |                                                                                                 |                                                                                   |                                                                                     | 27.4  | 32.2  | 31.0  | 28.0  | 25.4  | 24.0  | 23.0  | 20.6  |
| 80.0                                                                              |                                                                                                 |                                                                                   |                                                                                     |       | 29.0  | 27.8  | 26.4  | 23.8  | 22.2  | 21.4  | 19.6  |
| 85.0                                                                              |                                                                                                 |                                                                                   |                                                                                     |       | 26.4  | 25.0  | 25.2  | 22.0  | 20.8  | 20.0  | 18.6  |
| 90.0                                                                              |                                                                                                 |                                                                                   |                                                                                     |       | 23.8  | 22.4  | 24.0  | 20.8  | 19.4  | 18.8  | 17.8  |
| 95.0                                                                              |                                                                                                 |                                                                                   |                                                                                     |       |       | 21.0  | 21.8  | 19.0  | 18.2  | 17.6  | 17.0  |
| 100.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       | 20.0  | 19.8  | 17.2  | 17.0  | 16.4  | 16.0  |
| 105.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       | 18.0  | 15.8  | 15.6  | 15.0  | 14.8  |
| 110.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       | 16.6  | 14.8  | 14.2  | 13.8  | 13.6  |
| 115.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       | 15.2  | 14.0  | 13.0  | 12.8  | 12.8  |
| 120.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       | 13.4  | 11.6  | 12.0  | 12.0  |
| 125.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       | 12.8  | 10.4  | 11.6  | 11.4  |
| 130.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       | 12.4  | 9.8   | 11.0  | 10.8  |
| 135.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       | 11.4  | 9.4   | 10.4  | 10.0  |
| 140.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       | 8.8   | 10.0  | 9.2   |
| 145.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       | 8.4   | 9.4   | 8.4   |
| 150.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       | 8.0   | 8.6   | 7.6   |
| 155.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       |       | 7.8   | 6.8   |
| 160.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       |       | 7.2   | 6.2   |
| 165.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       |       |       | 5.6   |
| 170.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       |       |       | 5.0   |
| 175.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       |       |       | 4.4   |
| 180.0                                                                             |                                                                                                 |                                                                                   |                                                                                     |       |       |       |       |       |       |       | 3.8   |

\*Over rear with special equipment

|  |                |  |  |       |       |       |       |       |       |       |       |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 12.9 m - 60.0 m<br>(42.3 ft - 196.9 ft)                                             | 21 000 kg<br>(46,200 lb)                                                                          | 25.6 ft x 24.6 ft spread<br>(100%)                                                  | 360°                                                                                  |       |       |       |       |       |       |       |       |
|  |  Pounds x 1000 |                                                                                     |                                                                                       |       |       |       |       |       |       |       |       |
| Feet                                                                                | 42.3                                                                                              | 58.0                                                                                | 73.8                                                                                  | 89.1  | 104.5 | 119.6 | 135.3 | 150.9 | 166.4 | 181.7 | 196.9 |
| 10.0                                                                                | 210.0                                                                                             | 199.0                                                                               | 186.0                                                                                 | 143.0 |       |       |       |       |       |       |       |
| 15.0                                                                                | 164.0                                                                                             | 164.0                                                                               | 154.0                                                                                 | 143.0 | 110.0 |       |       |       |       |       |       |
| 20.0                                                                                | 130.0                                                                                             | 131.0                                                                               | 131.0                                                                                 | 125.0 | 108.0 | 84.0  | 62.0  | 45.0  |       |       |       |
| 25.0                                                                                | 107.0                                                                                             | 108.0                                                                               | 101.0                                                                                 | 93.0  | 90.0  | 78.0  | 62.0  | 45.0  | 35.2  |       |       |
| 30.0                                                                                | 85.0                                                                                              | 86.0                                                                                | 78.0                                                                                  | 76.0  | 71.0  | 70.0  | 61.0  | 45.0  | 35.2  | 25.6  | 22.0  |
| 35.0                                                                                |                                                                                                   | 69.0                                                                                | 65.0                                                                                  | 62.0  | 61.0  | 57.0  | 54.0  | 45.0  | 35.2  | 25.6  | 22.0  |
| 40.0                                                                                |                                                                                                   | 55.0                                                                                | 55.0                                                                                  | 52.0  | 52.0  | 48.0  | 45.0  | 43.0  | 35.2  | 25.6  | 22.0  |
| 45.0                                                                                |                                                                                                   | 47.0                                                                                | 47.0                                                                                  | 45.0  | 44.0  | 41.0  | 41.0  | 36.8  | 35.2  | 25.6  | 22.0  |
| 50.0                                                                                |                                                                                                   |                                                                                     | 40.0                                                                                  | 40.6  | 38.2  | 35.6  | 35.8  | 31.6  | 31.0  | 25.6  | 22.0  |
| 55.0                                                                                |                                                                                                   |                                                                                     | 35.2                                                                                  | 35.4  | 33.4  | 32.8  | 31.4  | 28.2  | 26.8  | 25.6  | 22.0  |
| 60.0                                                                                |                                                                                                   |                                                                                     |                                                                                       | 30.8  | 29.4  | 30.0  | 27.6  | 26.4  | 23.4  | 23.8  | 22.0  |
| 65.0                                                                                |                                                                                                   |                                                                                     |                                                                                       | 26.8  | 26.0  | 26.8  | 24.4  | 24.6  | 21.6  | 22.4  | 21.2  |
| 70.0                                                                                |                                                                                                   |                                                                                     |                                                                                       | 23.6  | 22.8  | 24.0  | 21.8  | 22.0  | 20.2  | 20.6  | 19.0  |
| 75.0                                                                                |                                                                                                   |                                                                                     |                                                                                       | 15.2  | 20.0  | 21.6  | 19.4  | 19.6  | 19.0  | 18.4  | 16.8  |
| 80.0                                                                                |                                                                                                   |                                                                                     |                                                                                       |       | 17.6  | 19.2  | 17.4  | 17.8  | 17.8  | 16.6  | 15.0  |
| 85.0                                                                                |                                                                                                   |                                                                                     |                                                                                       |       | 15.6  | 17.0  | 15.6  | 16.0  | 16.2  | 14.8  | 13.4  |
| 90.0                                                                                |                                                                                                   |                                                                                     |                                                                                       |       | 13.8  | 15.2  | 14.0  | 14.4  | 14.6  | 13.4  | 12.0  |
| 95.0                                                                                |                                                                                                   |                                                                                     |                                                                                       |       |       | 13.6  | 12.4  | 13.2  | 13.2  | 12.0  | 10.6  |
| 100.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       | 12.8  | 11.0  | 12.4  | 12.0  | 10.8  | 9.4   |
| 105.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       | 10.4  | 11.6  | 11.0  | 9.8   | 8.4   |
| 110.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       | 9.8   | 10.4  | 9.8   | 8.8   | 7.4   |
| 115.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       | 9.2   | 9.4   | 8.8   | 7.8   | 6.6   |
| 120.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       | 8.4   | 7.8   | 7.0   | 5.8   |
| 125.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       | 7.6   | 7.0   | 6.2   | 5.0   |
| 130.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       | 6.8   | 6.2   | 5.4   | 4.2   |
| 135.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       | 6.2   | 5.4   | 4.6   | 3.6   |
| 140.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       |       | 4.8   | 4.0   | 3.0   |
| 145.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       |       | 4.2   | 3.4   | 2.4   |
| 150.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       |       | 3.6   | 2.8   |       |
| 155.0                                                                               |                                                                                                   |                                                                                     |                                                                                       |       |       |       |       |       |       | 2.2   |       |

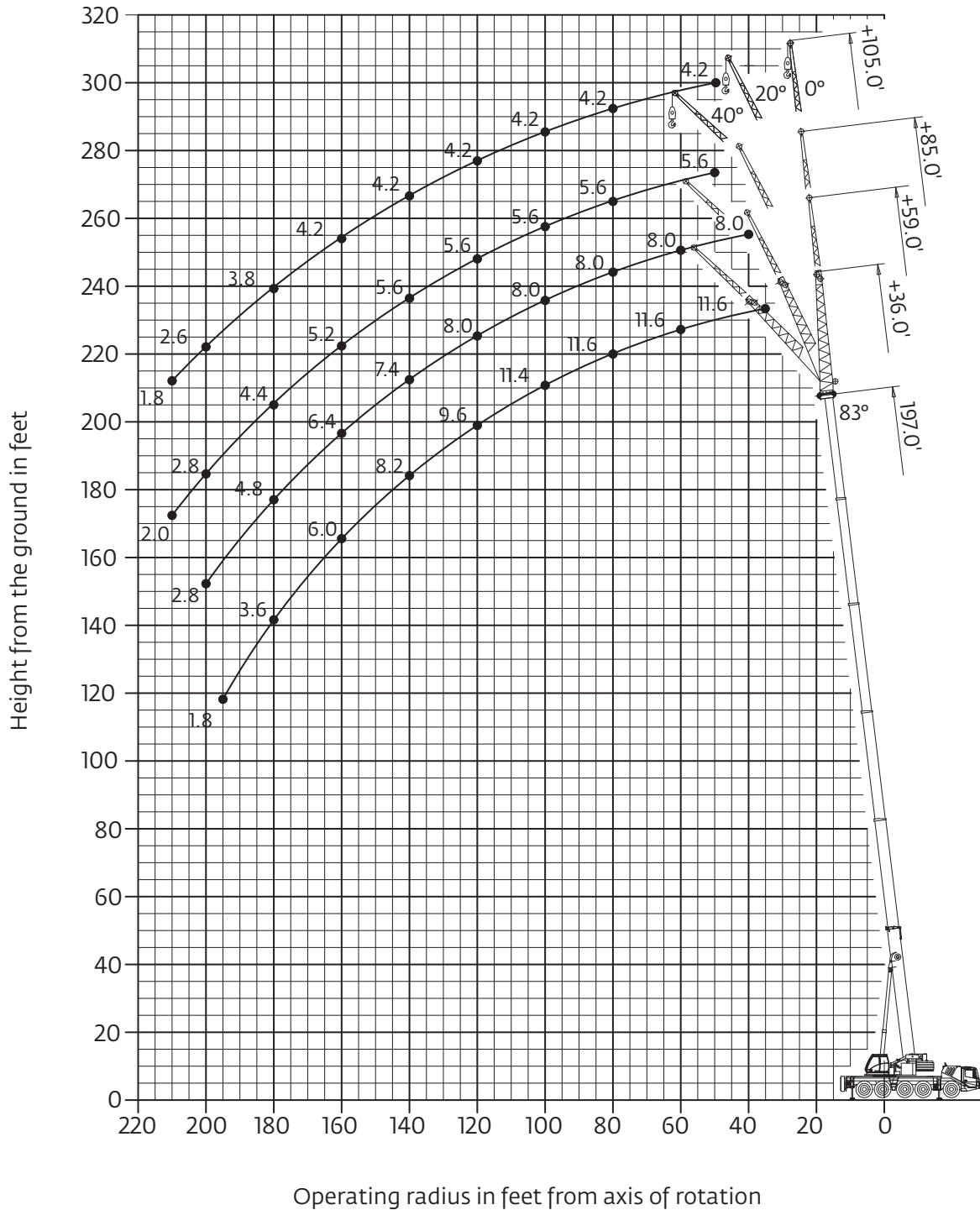
# Load charts

## Main boom



# Working range

42 ft - 197 ft main boom with hydraulic 36 ft and 59 ft swingaway, 1x26 ft and 1x20 ft insert



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



# Load charts

## Hydraulic offsettable swingaway

### Intermediate angle

|                                                                                   |                                                                                                 |                                                                                   |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------|----------|------------|---------|----------|-------------|---------|----------|
|  |                |  |  |  |         |          |            |         |          |             |         |          |
| 60 m<br>(197 ft)                                                                  | 11-18-26-32 m<br>(36-59-85-105 ft)                                                              | 40 100 kg<br>(88,400 lb)                                                          | 25.6 ft x 24.6 ft spread<br>100%                                                  | 360°                                                                              |         |          |            |         |          |             |         |          |
|  |  Pounds x 1000 |                                                                                   |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
|                                                                                   | 197' + 36'                                                                                      |                                                                                   |                                                                                   | 197' + 59'                                                                        |         |          | 197' + 85' |         |          | 197' + 105' |         |          |
|                                                                                   | 0°                                                                                              | 0°- 20°                                                                           | 20°- 40°                                                                          | 0°                                                                                | 0°- 20° | 20°- 40° | 0°         | 0°- 20° | 20°- 40° | 0°          | 0°- 20° | 20°- 40° |
| Feet                                                                              |                                                                                                 |                                                                                   |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
| 30.0                                                                              |                                                                                                 |                                                                                   |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
| 35.0                                                                              | 11.6                                                                                            |                                                                                   |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
| 40.0                                                                              | 11.6                                                                                            |                                                                                   |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
| 45.0                                                                              | 11.6                                                                                            |                                                                                   |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
| 50.0                                                                              | 11.6                                                                                            | 11.6                                                                              |                                                                                   |                                                                                   |         |          |            |         |          |             |         |          |
| 55.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               |         |          |            |         |          |             |         |          |
| 60.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     |          |            |         |          |             |         |          |
| 65.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     |          |            |         |          |             |         |          |
| 70.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     |          |            |         |          |             |         |          |
| 75.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     |          |            |         |          |             |         |          |
| 80.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     |          |             |         |          |
| 85.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     |          |             |         |          |
| 90.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 95.0                                                                              | 11.6                                                                                            | 11.6                                                                              | 11.6                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 100.0                                                                             | 11.4                                                                                            | 11.4                                                                              | 11.4                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 105.0                                                                             | 11.0                                                                                            | 10.8                                                                              | 11.0                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 110.0                                                                             | 10.6                                                                                            | 10.4                                                                              | 10.6                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 115.0                                                                             | 10.0                                                                                            | 10.0                                                                              | 10.0                                                                              | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 120.0                                                                             | 9.6                                                                                             | 9.6                                                                               | 9.6                                                                               | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 125.0                                                                             | 9.2                                                                                             | 9.2                                                                               | 9.2                                                                               | 8.0                                                                               | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 130.0                                                                             | 8.8                                                                                             | 8.8                                                                               | 8.8                                                                               | 7.8                                                                               | 7.8     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 135.0                                                                             | 8.4                                                                                             | 8.4                                                                               | 8.6                                                                               | 7.4                                                                               | 7.6     | 7.8      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 140.0                                                                             | 8.0                                                                                             | 8.0                                                                               | 8.2                                                                               | 7.2                                                                               | 7.2     | 7.4      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 145.0                                                                             | 7.6                                                                                             | 7.6                                                                               | 7.8                                                                               | 6.8                                                                               | 7.0     | 7.2      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 150.0                                                                             | 6.8                                                                                             | 6.8                                                                               | 7.4                                                                               | 6.6                                                                               | 6.6     | 6.8      | 5.4        | 5.4     | 5.6      | 4.2         | 4.2     | 4.0      |
| 155.0                                                                             | 6.2                                                                                             | 6.2                                                                               | 6.8                                                                               | 6.4                                                                               | 6.4     | 6.6      | 5.0        | 5.2     | 5.6      | 4.2         | 4.2     | 4.0      |
| 160.0                                                                             | 5.6                                                                                             | 5.6                                                                               | 6.0                                                                               | 6.0                                                                               | 6.2     | 6.4      | 4.8        | 5.0     | 5.2      | 4.0         | 4.2     | 4.0      |
| 165.0                                                                             | 5.0                                                                                             | 5.0                                                                               | 5.4                                                                               | 5.6                                                                               | 5.6     | 6.2      | 4.6        | 4.8     | 5.0      | 3.8         | 4.0     | 4.0      |
| 170.0                                                                             | 4.4                                                                                             | 4.4                                                                               | 4.8                                                                               | 5.0                                                                               | 5.0     | 5.8      | 4.4        | 4.6     | 4.8      | 3.6         | 3.8     | 4.0      |
| 175.0                                                                             | 3.8                                                                                             | 3.8                                                                               | 4.2                                                                               | 4.6                                                                               | 4.6     | 5.4      | 4.2        | 4.4     | 4.6      | 3.4         | 3.6     | 4.0      |
| 180.0                                                                             | 3.2                                                                                             | 3.2                                                                               | 3.6                                                                               | 4.0                                                                               | 4.0     | 4.8      | 3.8        | 3.8     | 4.4      | 3.2         | 3.4     | 3.8      |
| 185.0                                                                             | 2.8                                                                                             | 2.8                                                                               |                                                                                   | 3.6                                                                               | 3.6     | 4.2      | 3.4        | 3.4     | 4.2      | 3.0         | 3.2     | 3.6      |
| 190.0                                                                             | 2.4                                                                                             | 2.4                                                                               |                                                                                   | 3.0                                                                               | 3.0     | 3.8      | 3.0        | 3.0     | 3.6      | 2.8         | 2.8     | 3.4      |
| 195.0                                                                             | 1.8                                                                                             | 1.8                                                                               |                                                                                   | 2.6                                                                               | 2.6     | 3.2      | 2.6        | 2.6     | 3.2      | 2.4         | 2.4     | 3.0      |
| 200.0                                                                             |                                                                                                 |                                                                                   |                                                                                   | 2.2                                                                               | 2.2     | 2.8      | 2.2        | 2.2     | 2.8      | 2.0         | 2.0     | 2.6      |
| 205.0                                                                             |                                                                                                 |                                                                                   |                                                                                   |                                                                                   |         |          |            |         | 2.4      |             |         | 2.2      |
| 210.0                                                                             |                                                                                                 |                                                                                   |                                                                                   |                                                                                   |         |          |            |         | 2.0      |             |         | 1.8      |

### Loads for luffing

|                                                                                     |                                                                                                   |                                                                                     |                                                                                     |                                                                                     |         |  |            |         |  |             |         |  |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|--|------------|---------|--|-------------|---------|--|
|  |                |  |  |  |         |  |            |         |  |             |         |  |
| 60 m<br>(197 ft)                                                                    | 11-18-26-32 m<br>(36-59-85-105 ft)                                                                | 40 100 kg<br>(88,400 lb)                                                            | 25.6 ft x 24.6 ft spread<br>100%                                                    | 360°                                                                                |         |  |            |         |  |             |         |  |
|  |  Pounds x 1000 |                                                                                     |                                                                                     |                                                                                     |         |  |            |         |  |             |         |  |
|                                                                                     | 197' + 36'                                                                                        |                                                                                     |                                                                                     | 197' + 59'                                                                          |         |  | 197' + 85' |         |  | 197' + 105' |         |  |
|                                                                                     | 0°-20°                                                                                            | 20°-40°                                                                             |                                                                                     | 0°-20°                                                                              | 20°-40° |  | 0°-20°     | 20°-40° |  | 0°-20°      | 20°-40° |  |
| Feet                                                                                |                                                                                                   |                                                                                     |                                                                                     |                                                                                     |         |  |            |         |  |             |         |  |
| 40.0                                                                                |                                                                                                   |                                                                                     |                                                                                     |                                                                                     |         |  |            |         |  |             |         |  |
| 45.0                                                                                |                                                                                                   |                                                                                     |                                                                                     |                                                                                     |         |  |            |         |  |             |         |  |
| 50.0                                                                                | 11.2                                                                                              |                                                                                     |                                                                                     |                                                                                     |         |  |            |         |  |             |         |  |
| 55.0                                                                                | 11.2                                                                                              | 11.2                                                                                |                                                                                     |                                                                                     |         |  |            |         |  |             |         |  |
| 60.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     |         |  |            |         |  |             |         |  |
| 65.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     |         |  |            |         |  |             |         |  |
| 70.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     |         |  | 5.6        |         |  |             |         |  |
| 75.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     |         |  | 5.6        |         |  | 4.2         |         |  |
| 80.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        |         |  | 4.2         |         |  |
| 85.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        |         |  | 4.2         |         |  |
| 90.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 95.0                                                                                | 11.2                                                                                              | 11.2                                                                                | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 100.0                                                                               | 10.8                                                                                              | 10.8                                                                                | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 105.0                                                                               | 10.4                                                                                              | 10.4                                                                                | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 110.0                                                                               | 9.8                                                                                               | 10.0                                                                                | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 115.0                                                                               | 9.4                                                                                               | 9.6                                                                                 | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 120.0                                                                               | 9.0                                                                                               | 9.2                                                                                 | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 125.0                                                                               | 8.6                                                                                               | 8.8                                                                                 | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 130.0                                                                               | 8.4                                                                                               | 8.4                                                                                 | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 135.0                                                                               | 8.0                                                                                               | 8.2                                                                                 | 7.2                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 140.0                                                                               | 7.6                                                                                               | 7.8                                                                                 | 6.8                                                                                 |                                                                                     | 7.2     |  | 5.6        | 5.6     |  | 4.2         | 3.8     |  |
| 145.0                                                                               | 7.0                                                                                               | 7.4                                                                                 | 6.6                                                                                 |                                                                                     | 6.8     |  | 5.4        | 5.6     |  | 4.2         | 3.8     |  |
| 150.0                                                                               | 6.4                                                                                               | 6.8                                                                                 | 6.4                                                                                 |                                                                                     | 6.6     |  | 5.2        | 5.4     |  | 4.2         | 3.8     |  |
| 155.0                                                                               | 5.6                                                                                               | 6.2                                                                                 | 6.0                                                                                 |                                                                                     | 6.4     |  | 5.0        | 5.2     |  | 4.2         | 3.8     |  |
| 160.0                                                                               | 5.0                                                                                               | 5.6                                                                                 | 5.8                                                                                 |                                                                                     | 6.0     |  | 4.8        | 5.0     |  | 4.0         | 3.8     |  |
| 165.0                                                                               | 4.4                                                                                               | 4.8                                                                                 | 5.2                                                                                 |                                                                                     | 5.8     |  | 4.6        | 4.8     |  | 3.8         | 3.8     |  |
| 170.0                                                                               | 4.0                                                                                               | 4.4                                                                                 | 4.6                                                                                 |                                                                                     | 5.4     |  | 4.4        | 4.6     |  | 3.6         | 3.8     |  |
| 175.0                                                                               | 3.4                                                                                               | 3.8                                                                                 | 4.2                                                                                 |                                                                                     | 5.0     |  | 4.2        | 4.4     |  | 3.4         | 3.8     |  |
| 180.0                                                                               | 3.0                                                                                               | 3.2                                                                                 | 3.6                                                                                 |                                                                                     | 4.4     |  | 3.6        | 4.2     |  | 3.4         | 3.6     |  |
| 185.0                                                                               | 2.6                                                                                               |                                                                                     | 3.2                                                                                 |                                                                                     | 3.8     |  | 3.2        | 4.0     |  | 3.2         | 3.4     |  |
| 190.0                                                                               | 2.2                                                                                               |                                                                                     | 2.8                                                                                 |                                                                                     | 3.4     |  | 2.8        | 3.4     |  | 2.8         | 3.2     |  |
| 195.0                                                                               |                                                                                                   |                                                                                     | 2.4                                                                                 |                                                                                     | 3.0     |  | 2.4        | 3.0     |  | 2.4         | 3.0     |  |
| 200.0                                                                               |                                                                                                   |                                                                                     | 2.0                                                                                 |                                                                                     | 2.6     |  | 2.0        | 2.6     |  | 2.0         | 2.6     |  |
| 205.0                                                                               |                                                                                                   |                                                                                     |                                                                                     |                                                                                     |         |  |            | 2.2     |  |             | 2.2     |  |

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# Load charts

## Hydraulic offsettable swingaway

### Intermediate angle



60 m  
(197 ft)



11-18-26-32 m  
(36-59-85-105 ft)



21 000 kg  
(46,200 lb)



25.6 ft x 24.6 ft spread  
100%



360°



Pounds x 1000

| Feet  | 197' + 36' |         |          | 197' + 59' |         |          | 197' + 85' |         |          | 197' + 105' |         |          |
|-------|------------|---------|----------|------------|---------|----------|------------|---------|----------|-------------|---------|----------|
|       | 0°         | 0°- 20° | 20°- 40° | 0°         | 0°- 20° | 20°- 40° | 0°         | 0°- 20° | 20°- 40° | 0°          | 0°- 20° | 20°- 40° |
| 30.0  |            |         |          |            |         |          |            |         |          |             |         |          |
| 35.0  | 11.6       |         |          |            |         |          |            |         |          |             |         |          |
| 40.0  | 11.6       |         |          | 8.0        |         |          |            |         |          |             |         |          |
| 45.0  | 11.6       |         |          | 8.0        |         |          |            |         |          |             |         |          |
| 50.0  | 11.6       | 11.6    |          | 8.0        |         |          | 5.6        |         |          | 4.2         |         |          |
| 55.0  | 11.6       | 11.6    | 11.6     | 8.0        |         |          | 5.6        |         |          | 4.2         |         |          |
| 60.0  | 11.6       | 11.6    | 11.6     | 8.0        | 8.0     |          | 5.6        |         |          | 4.2         |         |          |
| 65.0  | 11.6       | 11.6    | 11.6     | 8.0        | 8.0     |          | 5.6        |         |          | 4.2         |         |          |
| 70.0  | 11.6       | 11.6    | 11.6     | 8.0        | 8.0     |          | 5.6        | 5.6     |          | 4.2         |         |          |
| 75.0  | 11.6       | 11.6    | 11.6     | 8.0        | 8.0     |          | 5.6        | 5.6     |          | 4.2         | 4.2     |          |
| 80.0  | 11.6       | 11.6    | 11.6     | 8.0        | 8.0     | 8.0      | 5.6        | 5.6     |          | 4.2         | 4.2     |          |
| 85.0  | 11.6       | 11.6    | 11.6     | 8.0        | 8.0     | 8.0      | 5.6        | 5.6     |          | 4.2         | 4.2     |          |
| 90.0  | 10.6       | 10.6    | 11.6     | 8.0        | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 95.0  | 9.4        | 9.4     | 10.4     | 8.0        | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 100.0 | 8.2        | 8.2     | 9.2      | 8.0        | 8.0     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 105.0 | 7.2        | 7.2     | 8.2      | 7.8        | 7.8     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 110.0 | 6.2        | 6.2     | 7.2      | 6.8        | 6.8     | 8.0      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 115.0 | 5.4        | 5.4     | 6.2      | 6.0        | 6.0     | 7.6      | 5.6        | 5.6     | 5.6      | 4.2         | 4.2     | 4.0      |
| 120.0 | 4.6        | 4.6     | 5.4      | 5.2        | 5.2     | 6.8      | 5.0        | 5.0     | 5.6      | 4.2         | 4.2     | 4.0      |
| 125.0 | 3.8        | 3.8     | 4.6      | 4.6        | 4.6     | 6.0      | 4.2        | 4.2     | 5.6      | 4.0         | 4.0     | 4.0      |
| 130.0 | 3.2        | 3.2     | 4.0      | 3.8        | 3.8     | 5.2      | 3.6        | 3.6     | 5.0      | 3.4         | 3.4     | 4.0      |
| 135.0 | 2.6        | 2.6     | 3.2      | 3.2        | 3.2     | 4.4      | 3.0        | 3.0     | 4.2      | 2.8         | 2.8     | 4.0      |
| 140.0 | 2.0        | 2.0     | 2.6      | 2.6        | 2.6     | 3.8      | 2.4        | 2.4     | 3.6      | 2.2         | 2.2     | 3.6      |
| 145.0 |            |         | 2.0      | 2.2        | 2.2     | 3.2      | 2.0        | 2.0     | 3.0      |             |         | 3.0      |
| 150.0 |            |         |          |            |         | 2.6      |            |         | 2.6      |             |         | 2.4      |
| 155.0 |            |         |          |            |         | 2.2      |            |         | 2.0      |             |         |          |

### Loads for luffing



60 m  
(197 ft)



11-18-26-32 m m  
(36-59-85-105 ft)



21 000 kg  
(46,200 lb)



25.6 ft x 24.6 ft spread  
100%



360°



Pounds x 1000

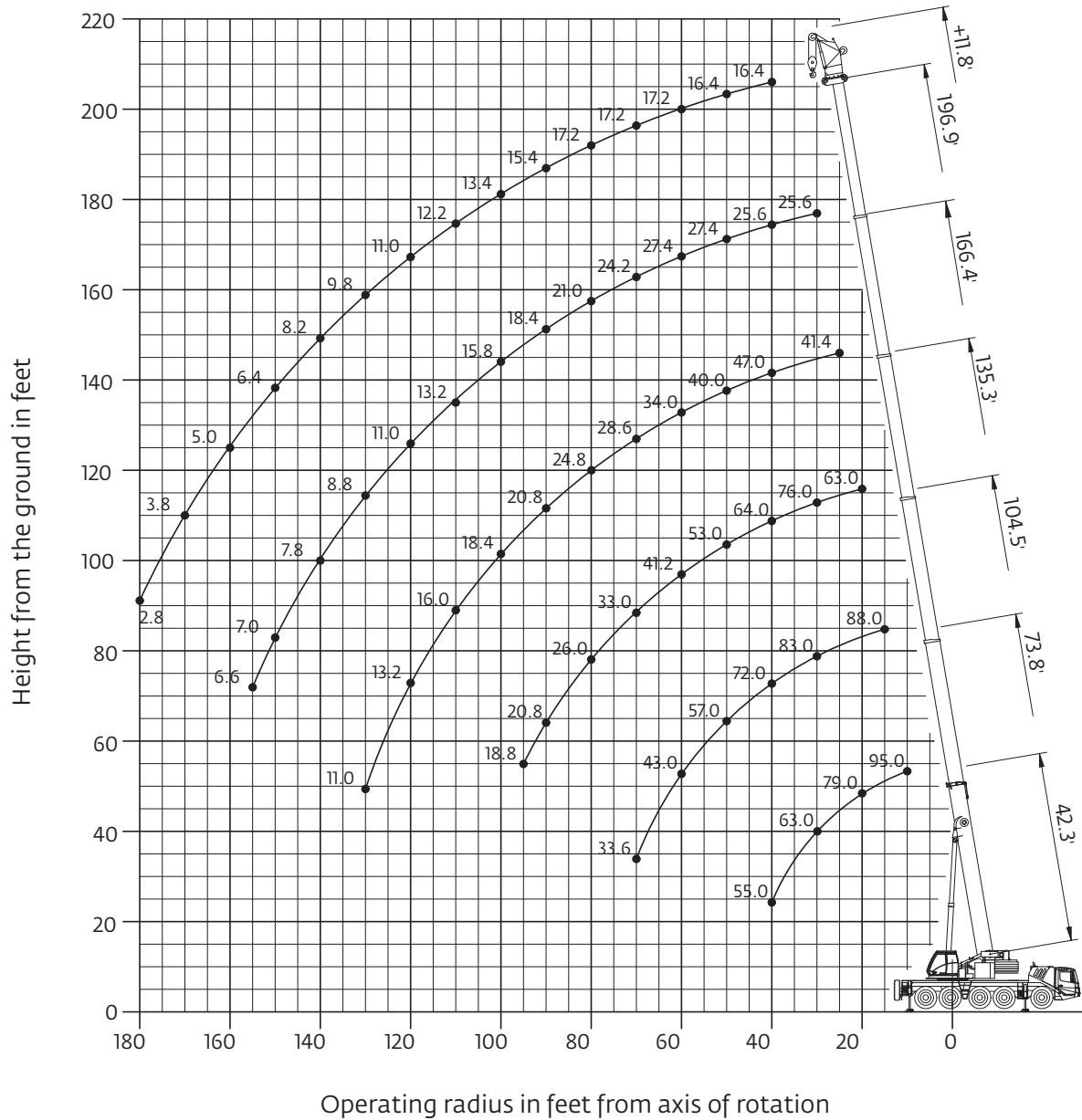
| Feet  | 197' + 36' |         | 197' + 59' |         | 197' + 85' |         | 197' + 105' |         |
|-------|------------|---------|------------|---------|------------|---------|-------------|---------|
|       | 0°-20°     | 20°-40° | 0°-20°     | 20°-40° | 0°-20°     | 20°-40° | 0°-20°      | 20°-40° |
| 40.0  |            |         |            |         |            |         |             |         |
| 45.0  |            |         |            |         |            |         |             |         |
| 50.0  | 11.2       |         |            |         |            |         |             |         |
| 55.0  | 11.2       | 11.2    |            |         |            |         |             |         |
| 60.0  | 11.2       | 11.2    | 7.2        |         |            |         |             |         |
| 65.0  | 11.2       | 11.2    | 7.2        |         |            |         |             |         |
| 70.0  | 11.2       | 11.2    | 7.2        |         | 5.6        |         |             |         |
| 75.0  | 11.2       | 11.2    | 7.2        |         | 5.6        |         | 4.2         |         |
| 80.0  | 11.2       | 11.2    | 7.2        | 7.2     | 5.6        |         | 4.2         |         |
| 85.0  | 11.2       | 11.2    | 7.2        | 7.2     | 5.6        |         | 4.2         |         |
| 90.0  | 10.6       | 11.2    | 7.2        | 7.2     | 5.6        | 5.6     | 4.2         | 3.8     |
| 95.0  | 9.4        | 10.4    | 7.2        | 7.2     | 5.6        | 5.6     | 4.2         | 3.8     |
| 100.0 | 8.2        | 9.2     | 7.2        | 7.2     | 5.6        | 5.6     | 4.2         | 3.8     |
| 105.0 | 7.2        | 8.2     | 7.2        | 7.2     | 5.6        | 5.6     | 4.2         | 3.8     |
| 110.0 | 6.2        | 7.2     | 6.8        | 7.2     | 5.6        | 5.6     | 4.2         | 3.8     |
| 115.0 | 5.4        | 6.2     | 6.0        | 7.2     | 5.6        | 5.6     | 4.2         | 3.8     |
| 120.0 | 4.6        | 5.4     | 5.2        | 6.8     | 5.0        | 5.6     | 4.2         | 3.8     |
| 125.0 | 3.8        | 4.6     | 4.6        | 6.0     | 4.2        | 5.6     | 4.0         | 3.8     |
| 130.0 | 3.2        | 4.0     | 3.8        | 5.2     | 3.6        | 5.0     | 3.4         | 3.8     |
| 135.0 | 2.6        | 3.2     | 3.2        | 4.4     | 3.0        | 4.2     | 2.8         | 3.8     |
| 140.0 | 2.0        | 2.6     | 2.6        | 3.8     | 2.4        | 3.6     | 2.2         | 3.6     |
| 145.0 |            | 2.0     | 2.2        | 3.2     | 2.0        | 3.0     |             | 3.0     |
| 150.0 |            |         |            | 2.6     |            | 2.6     |             | 2.4     |
| 155.0 |            |         |            | 2.2     |            | 2.0     |             |         |

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

Grove GMK5165-2 The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane

# Working range

42 ft - 197 ft main boom with 12 ft integrated heavy duty jib



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

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The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# Load charts

## Integrated heavy duty jib

### Intermediate angle

|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |
| 12,9 m - 60,0 m<br>(42.3 - 196.9 ft)                                              | 3,6 m<br>(11.8 ft)                                                                | 40 100 kg<br>(88,400 lb)                                                          | 25.6 ft x 24.6 ft spread<br>100%                                                  | 360°                                                                                |

|       | 42.3' + 11.8' |      |      | 73.8' + 11.8' |      |      | 104.5' + 11.8' |      |      | 135.3' + 11.8' |      |      | 166.4' + 11.8' |      |      | 196.9' + 11.8' |      |      |
|-------|---------------|------|------|---------------|------|------|----------------|------|------|----------------|------|------|----------------|------|------|----------------|------|------|
|       | 0°            | <20° | <40° | 0°            | <20° | <40° | 0°             | <20° | <40° | 0°             | <20° | <40° | 0°             | <20° | <40° | 0°             | <20° | <40° |
| Feet  |               |      |      |               |      |      |                |      |      |                |      |      |                |      |      |                |      |      |
| 10.0  | 95.0          | 95.0 | 88.0 |               |      |      |                |      |      |                |      |      |                |      |      |                |      |      |
| 15.0  | 91.0          | 87.0 | 85.0 |               |      |      |                |      |      |                |      |      |                |      |      |                |      |      |
| 20.0  | 79.0          | 78.0 | 78.0 | 95.0          | 93.0 | 88.0 |                |      | 63.0 |                |      |      |                |      |      |                |      |      |
| 25.0  | 70.0          | 70.0 | 71.0 | 91.0          | 87.0 | 85.0 |                |      | 63.0 |                |      | 41.4 |                |      |      |                |      |      |
| 30.0  | 63.0          | 63.0 |      | 83.0          | 81.0 | 81.0 | 76.0           | 66.0 | 63.0 |                |      | 41.4 |                |      | 25.6 |                |      |      |
| 35.0  | 59.0          | 59.0 |      | 76.0          | 76.0 | 76.0 | 70.0           | 66.0 | 63.0 |                |      | 41.4 |                |      | 25.6 |                |      |      |
| 40.0  | 55.0          |      |      | 71.0          | 71.0 | 72.0 | 64.0           | 64.0 | 63.0 | 47.0           | 41.4 | 41.4 |                |      | 25.6 |                |      | 16.4 |
| 45.0  |               |      |      | 64.0          | 64.0 | 64.0 | 59.0           | 59.0 | 59.0 | 43.2           | 41.4 | 41.4 | 27.4           | 25.6 | 25.6 |                |      | 16.4 |
| 50.0  |               |      |      | 57.0          | 57.0 | 57.0 | 53.0           | 53.0 | 53.0 | 40.0           | 39.8 | 39.8 | 27.4           | 25.6 | 25.6 |                |      | 16.4 |
| 55.0  |               |      |      | 49.0          | 49.0 |      | 46.0           | 46.0 | 47.0 | 36.8           | 36.8 | 37.0 | 27.4           | 25.6 | 25.6 | 17.2           | 16.4 | 16.4 |
| 60.0  |               |      |      | 43.0          | 43.0 |      | 41.0           | 41.0 | 41.2 | 34.0           | 34.0 | 34.0 | 27.4           | 25.6 | 25.6 | 17.2           | 16.4 | 16.4 |
| 65.0  |               |      |      | 37.8          | 37.8 |      | 36.6           | 36.6 | 36.8 | 30.8           | 30.8 | 31.0 | 25.8           | 25.4 | 25.4 | 17.2           | 16.4 | 16.4 |
| 70.0  |               |      |      | 33.6          |      |      | 32.8           | 32.8 | 33.0 | 28.6           | 28.6 | 28.6 | 24.2           | 24.2 | 24.2 | 17.2           | 16.4 | 16.4 |
| 75.0  |               |      |      |               |      |      | 29.4           | 29.4 | 29.4 | 26.4           | 26.4 | 26.6 | 22.6           | 22.6 | 22.6 | 17.2           | 16.4 | 16.4 |
| 80.0  |               |      |      |               |      |      | 26.0           | 26.0 |      | 24.6           | 24.6 | 24.8 | 21.0           | 21.0 | 21.0 | 17.2           | 16.4 | 16.4 |
| 85.0  |               |      |      |               |      |      | 23.2           | 23.2 |      | 22.8           | 22.8 | 23.0 | 19.6           | 19.6 | 19.6 | 16.4           | 16.4 | 16.4 |
| 90.0  |               |      |      |               |      |      | 20.8           | 20.8 |      | 20.6           | 20.6 | 20.8 | 18.2           | 18.2 | 18.4 | 15.4           | 15.4 | 15.4 |
| 95.0  |               |      |      |               |      |      | 18.8           | 18.8 |      | 19.2           | 19.2 |      | 17.0           | 17.0 | 17.2 | 14.2           | 14.2 | 14.2 |
| 100.0 |               |      |      |               |      |      |                |      |      | 18.4           | 18.4 |      | 15.8           | 15.8 | 15.8 | 13.4           | 13.4 | 13.4 |
| 105.0 |               |      |      |               |      |      |                |      |      | 17.4           | 17.4 |      | 14.4           | 14.4 | 14.4 | 12.8           | 12.8 | 12.8 |
| 110.0 |               |      |      |               |      |      |                |      |      | 16.0           | 16.0 |      | 13.0           | 13.0 | 13.2 | 12.2           | 12.2 | 12.2 |
| 115.0 |               |      |      |               |      |      |                |      |      | 14.6           | 14.6 |      | 12.2           | 12.2 | 12.2 | 11.6           | 11.6 | 11.6 |
| 120.0 |               |      |      |               |      |      |                |      |      | 13.2           | 13.2 |      | 11.0           | 11.0 |      | 11.0           | 11.0 | 11.0 |
| 125.0 |               |      |      |               |      |      |                |      |      | 12.0           |      |      | 9.8            | 9.8  |      | 10.4           | 10.4 | 10.4 |
| 130.0 |               |      |      |               |      |      |                |      |      | 11.0           |      |      | 8.8            | 8.8  |      | 9.8            | 9.8  | 9.8  |
| 135.0 |               |      |      |               |      |      |                |      |      |                |      |      | 8.2            | 8.2  |      | 9.0            | 9.0  | 9.0  |
| 140.0 |               |      |      |               |      |      |                |      |      |                |      |      | 7.8            | 7.8  |      | 8.2            | 8.2  |      |
| 145.0 |               |      |      |               |      |      |                |      |      |                |      |      | 7.4            | 7.4  |      | 7.2            | 7.2  |      |
| 150.0 |               |      |      |               |      |      |                |      |      |                |      |      | 7.0            | 7.0  |      | 6.4            | 6.4  |      |
| 155.0 |               |      |      |               |      |      |                |      |      |                |      |      | 6.6            |      |      | 5.8            | 5.8  |      |
| 160.0 |               |      |      |               |      |      |                |      |      |                |      |      |                |      |      | 5.0            | 5.0  |      |
| 165.0 |               |      |      |               |      |      |                |      |      |                |      |      |                |      |      | 4.4            | 4.4  |      |
| 170.0 |               |      |      |               |      |      |                |      |      |                |      |      |                |      |      | 3.8            | 3.8  |      |
| 175.0 |               |      |      |               |      |      |                |      |      |                |      |      |                |      |      | 3.4            | 3.4  |      |
| 180.0 |               |      |      |               |      |      |                |      |      |                |      |      |                |      |      | 2.8            |      |      |

### Loads for luffing

|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |
| 12,9 m - 60,0 m<br>(42.3 - 196.9 ft)                                                | 3,6 m<br>(11.8 ft)                                                                  | 40 100 kg<br>(88,400 lb)                                                            | 25.6 ft x 24.6 ft spread<br>100%                                                    | 360°                                                                                  |

|       | 42.3' + 11.8' |         | 73.8' + 11.8' |         | 104.5' + 11.8' |         | 135.3' + 11.8' |         | 166.4' + 11.8' |         | 196.9' + 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° |
| Feet  |               |         |               |         |                |         |                |         |                |         |                |         |
| 10.0  | 67.0          | 67.0    |               |         |                |         |                |         |                |         |                |         |
| 15.0  | 64.0          | 64.0    |               | 67.0    |                |         |                |         |                |         |                |         |
| 20.0  | 62.0          | 62.0    | 66.0          | 66.0    |                | 60.0    |                |         |                |         |                |         |
| 25.0  | 58.0          | 60.0    | 64.0          | 64.0    |                | 60.0    |                | 39.4    |                |         |                |         |
| 30.0  | 55.0          |         | 63.0          | 63.0    | 63.0           | 60.0    |                | 39.4    |                | 24.4    |                |         |
| 35.0  | 53.0          |         | 62.0          | 62.0    | 63.0           | 60.0    |                | 39.4    |                | 24.4    |                |         |
| 40.0  |               |         | 59.0          | 61.0    | 61.0           | 60.0    | 39.4           | 39.4    |                | 24.4    |                | 15.6    |
| 45.0  |               |         | 57.0          | 60.0    | 56.0           | 56.0    | 39.4           | 39.4    | 24.4           | 24.4    |                | 15.6    |
| 50.0  |               |         | 53.0          | 53.0    | 52.0           | 52.0    | 38.0           | 38.0    | 24.4           | 24.4    |                | 15.6    |
| 55.0  |               |         | 45.0          |         | 45.0           | 45.0    | 35.2           | 35.2    | 24.4           | 24.4    | 15.6           | 15.6    |
| 60.0  |               |         | 39.4          |         | 39.0           | 39.2    | 32.4           | 32.4    | 24.4           | 24.4    | 15.6           | 15.6    |
| 65.0  |               |         | 34.4          |         | 34.2           | 34.2    | 29.4           | 29.4    | 24.2           | 24.2    | 15.6           | 15.6    |
| 70.0  |               |         |               |         | 30.0           | 30.2    | 27.2           | 27.2    | 23.0           | 23.0    | 15.6           | 15.6    |
| 75.0  |               |         |               |         | 26.6           | 26.8    | 25.2           | 25.4    | 21.4           | 21.4    | 15.6           | 15.6    |
| 80.0  |               |         |               |         | 23.8           |         | 23.4           | 23.6    | 20.0           | 20.0    | 15.6           | 15.6    |
| 85.0  |               |         |               |         | 21.2           |         | 21.2           | 21.4    | 18.6           | 18.6    | 15.6           | 15.6    |
| 90.0  |               |         |               |         | 19.0           |         | 19.2           | 19.4    | 17.4           | 17.4    | 14.6           | 14.6    |
| 95.0  |               |         |               |         | 17.0           |         | 18.2           |         | 16.2           | 16.2    | 13.6           | 13.6    |
| 100.0 |               |         |               |         |                |         | 17.4           |         | 15.0           | 15.0    | 12.6           | 12.8    |
| 105.0 |               |         |               |         |                |         | 15.8           |         | 13.8           | 13.8    | 12.2           | 12.2    |
| 110.0 |               |         |               |         |                |         | 14.4           |         | 12.4           | 12.4    | 11.6           | 11.6    |
| 115.0 |               |         |               |         |                |         | 13.2           |         | 11.2           | 11.2    | 11.0           | 11.0    |
| 120.0 |               |         |               |         |                |         | 12.0           |         | 10.0           |         | 10.4           | 10.4    |
| 125.0 |               |         |               |         |                |         |                |         | 9.0            |         | 9.8            | 9.8     |
| 130.0 |               |         |               |         |                |         |                |         | 8.2            |         | 9.0            | 9.2     |
| 135.0 |               |         |               |         |                |         |                |         | 7.8            |         | 8.2            | 8.2     |
| 140.0 |               |         |               |         |                |         |                |         | 7.4            |         | 7.4            |         |
| 145.0 |               |         |               |         |                |         |                |         | 7.0            |         | 6.6            |         |
| 150.0 |               |         |               |         |                |         |                |         | 6.6            |         | 5.8            |         |
| 155.0 |               |         |               |         |                |         |                |         |                |         | 5.2            |         |
| 160.0 |               |         |               |         |                |         |                |         |                |         | 4.6            |         |
| 165.0 |               |         |               |         |                |         |                |         |                |         | 4.0            |         |
| 170.0 |               |         |               |         |                |         |                |         |                |         | 3.6            |         |
| 175.0 |               |         |               |         |                |         |                |         |                |         | 3.0            |         |

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

Grove GMK5165-2 The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane

# Load charts

## Integrated heavy duty jib

### Intermediate angle



12,9 m - 60,0 m  
(42.3 - 196.9 ft)



3,6 m  
(11.8 ft)



46 200 kg  
(21,000 lb)



25.6 ft x 24.6 ft spread  
100%



360°



Pounds x 1000

|       | 42.3' + 11.8' |      |      | 73.8' + 11.8' |      |      | 104.5' + 11.8' |      |      | 135.3' + 11.8' |      |      | 166.4' + 11.8' |      |      | 196.9' + 11.8' |      |      |
|-------|---------------|------|------|---------------|------|------|----------------|------|------|----------------|------|------|----------------|------|------|----------------|------|------|
|       | 0°            | <20° | <40° | 0°            | <20° | <40° | 0°             | <20° | <40° | 0°             | <20° | <40° | 0°             | <20° | <40° | 0°             | <20° | <40° |
| Feet  |               |      |      |               |      |      |                |      |      |                |      |      |                |      |      |                |      |      |
| 10.0  | 95.0          | 95.0 | 88.0 |               |      |      |                |      |      |                |      |      |                |      |      |                |      |      |
| 15.0  | 91.0          | 87.0 | 85.0 |               |      |      |                |      |      |                |      |      |                |      |      |                |      |      |
| 20.0  | 79.0          | 78.0 | 78.0 | 95.0          | 93.0 | 88.0 |                |      |      |                |      |      |                |      |      |                |      |      |
| 25.0  | 70.0          | 70.0 | 71.0 | 91.0          | 87.0 | 85.0 |                |      |      |                |      |      |                |      |      |                |      |      |
| 30.0  | 63.0          | 63.0 |      | 76.0          | 76.0 | 77.0 | 68.0           | 66.0 | 63.0 |                |      |      |                |      |      |                |      |      |
| 35.0  | 59.0          | 59.0 |      | 62.0          | 62.0 | 63.0 | 56.0           | 56.0 | 57.0 |                |      |      |                |      |      |                |      |      |
| 40.0  | 55.0          |      |      | 51.0          | 51.0 | 52.0 | 47.0           | 47.0 | 47.0 | 43.0           | 41.4 | 41.4 |                |      |      |                |      |      |
| 45.0  |               |      |      | 43.4          | 43.4 | 43.8 | 39.4           | 39.4 | 39.8 | 36.6           | 36.6 | 37.2 | 27.4           | 25.6 | 25.6 |                |      |      |
| 50.0  |               |      |      | 37.0          | 37.0 | 37.4 | 33.6           | 33.6 | 34.0 | 32.6           | 32.6 | 32.6 | 27.4           | 25.6 | 25.6 |                |      |      |
| 55.0  |               |      |      | 32.0          | 32.0 |      | 29.0           | 29.0 | 29.4 | 30.0           | 30.0 | 30.0 | 25.6           | 25.6 | 25.6 | 17.2           | 16.4 | 16.4 |
| 60.0  |               |      |      | 29.8          | 29.8 |      | 25.2           | 25.2 | 25.4 | 26.4           | 26.4 | 26.6 | 22.2           | 22.2 | 22.6 | 17.2           | 16.4 | 16.4 |
| 65.0  |               |      |      | 27.0          | 27.0 |      | 22.0           | 22.0 | 22.2 | 23.2           | 23.2 | 23.6 | 19.4           | 19.4 | 19.6 | 17.2           | 16.4 | 16.4 |
| 70.0  |               |      |      | 23.8          |      |      | 19.2           | 19.2 | 19.4 | 20.6           | 20.6 | 20.8 | 18.2           | 18.2 | 18.2 | 17.2           | 16.4 | 16.4 |
| 75.0  |               |      |      |               |      |      | 16.8           | 16.8 | 17.0 | 18.4           | 18.4 | 18.6 | 16.6           | 16.6 | 17.0 | 15.4           | 15.4 | 15.6 |
| 80.0  |               |      |      |               |      |      | 14.6           | 14.6 |      | 16.4           | 16.4 | 16.6 | 15.0           | 15.0 | 15.8 | 13.6           | 13.6 | 13.8 |
| 85.0  |               |      |      |               |      |      | 12.6           | 12.6 |      | 14.6           | 14.6 | 14.8 | 14.0           | 14.0 | 14.2 | 12.0           | 12.0 | 12.2 |
| 90.0  |               |      |      |               |      |      | 11.2           | 11.2 |      | 13.0           | 13.0 | 13.2 | 13.2           | 13.2 | 13.4 | 10.6           | 10.6 | 10.6 |
| 95.0  |               |      |      |               |      |      | 10.6           | 10.6 |      | 11.6           | 11.6 |      | 12.0           | 12.0 | 12.0 | 9.2            | 9.2  | 9.4  |
| 100.0 |               |      |      |               |      |      |                |      |      | 10.4           | 10.4 |      | 10.6           | 10.6 | 10.8 | 8.0            | 8.0  | 8.2  |
| 105.0 |               |      |      |               |      |      |                |      |      | 9.0            | 9.0  |      | 9.6            | 9.6  | 9.6  | 7.0            | 7.0  | 7.2  |
| 110.0 |               |      |      |               |      |      |                |      |      | 8.0            | 8.0  |      | 8.6            | 8.6  | 8.6  | 6.0            | 6.0  | 6.2  |
| 115.0 |               |      |      |               |      |      |                |      |      | 6.8            | 6.8  |      | 7.6            | 7.6  | 7.8  | 5.2            | 5.2  | 5.2  |
| 120.0 |               |      |      |               |      |      |                |      |      | 6.0            | 6.0  |      | 6.8            | 6.8  |      | 4.4            | 4.4  | 4.4  |
| 125.0 |               |      |      |               |      |      |                |      |      | 5.2            |      |      | 6.0            | 6.0  |      | 3.6            | 3.6  | 3.8  |
| 130.0 |               |      |      |               |      |      |                |      |      | 4.4            |      |      | 5.2            | 5.2  |      | 3.0            | 3.0  | 3.0  |
| 135.0 |               |      |      |               |      |      |                |      |      |                |      |      | 4.4            | 4.4  |      | 2.4            | 2.4  | 2.4  |
| 140.0 |               |      |      |               |      |      |                |      |      |                |      |      | 3.8            | 3.8  |      |                |      |      |
| 145.0 |               |      |      |               |      |      |                |      |      |                |      |      | 3.2            | 3.2  |      |                |      |      |
| 150.0 |               |      |      |               |      |      |                |      |      |                |      |      | 2.6            | 2.6  |      |                |      |      |
| 155.0 |               |      |      |               |      |      |                |      |      |                |      |      | 2.0            |      |      |                |      |      |

### Loads for luffing



12,9 m - 60,0 m  
(42.3 - 196.9 ft)



3,6 m  
(11.8 ft)



46 200 kg  
(21,000 lb)



25.6 ft x 24.6 ft spread  
100%



360°



Pounds x 1000

|       | 42.3' + 11.8' |         | 73.8' + 11.8' |         | 104.5' + 11.8' |         | 135.3' + 11.8' |         | 166.4' + 11.8' |         | 196.9' + 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° |
| Feet  |               |         |               |         |                |         |                |         |                |         |                |         |
| 10.0  | 67.0          | 67.0    |               |         |                |         |                |         |                |         |                |         |
| 15.0  | 64.0          | 64.0    |               |         |                |         |                |         |                |         |                |         |
| 20.0  | 62.0          | 62.0    | 66.0          | 66.0    |                |         |                |         |                |         |                |         |
| 25.0  | 58.0          | 60.0    | 64.0          | 64.0    |                |         |                |         |                |         |                |         |
| 30.0  | 55.0          |         | 63.0          | 63.0    | 63.0           | 60.0    |                |         |                |         |                |         |
| 35.0  | 53.0          |         | 62.0          | 62.0    | 56.0           | 57.0    |                |         |                |         |                |         |
| 40.0  |               |         | 51.0          | 51.0    | 47.0           | 47.0    | 39.4           | 39.4    |                |         |                |         |
| 45.0  |               |         | 41.6          | 42.0    | 39.4           | 39.8    | 36.6           | 37.2    | 24.4           | 24.4    |                |         |
| 50.0  |               |         | 34.6          | 34.8    | 33.6           | 34.0    | 31.4           | 31.8    | 24.4           | 24.4    |                |         |
| 55.0  |               |         | 30.4          |         | 28.8           | 29.2    | 28.6           | 28.6    | 24.4           | 24.4    | 15.6           | 15.6    |
| 60.0  |               |         | 28.2          |         | 24.4           | 24.6    | 26.4           | 26.6    | 22.2           | 22.6    | 15.6           | 15.6    |
| 65.0  |               |         | 24.6          |         | 21.0           | 21.0    | 23.2           | 23.6    | 19.4           | 19.6    | 15.6           | 15.6    |
| 70.0  |               |         |               |         | 18.0           | 18.0    | 20.4           | 20.6    | 17.2           | 17.2    | 15.6           | 15.6    |
| 75.0  |               |         |               |         | 15.4           | 15.6    | 17.8           | 18.0    | 15.8           | 16.2    | 15.4           | 15.6    |
| 80.0  |               |         |               |         | 13.4           |         | 15.6           | 15.8    | 14.2           | 15.0    | 13.6           | 13.8    |
| 85.0  |               |         |               |         | 11.4           |         | 13.8           | 13.8    | 13.4           | 13.6    | 12.0           | 12.2    |
| 90.0  |               |         |               |         | 10.6           |         | 12.2           | 12.2    | 12.6           | 12.8    | 10.6           | 10.6    |
| 95.0  |               |         |               |         | 10.0           |         | 10.6           |         | 11.6           | 11.6    | 9.2            | 9.4     |
| 100.0 |               |         |               |         |                |         | 9.4            |         | 10.2           | 10.4    | 8.0            | 8.2     |
| 105.0 |               |         |               |         |                |         | 8.2            |         | 9.0            | 9.2     | 7.0            | 7.2     |
| 110.0 |               |         |               |         |                |         | 7.2            |         | 8.0            | 8.0     | 6.0            | 6.2     |
| 115.0 |               |         |               |         |                |         | 6.2            |         | 7.0            | 7.2     | 5.4            | 5.2     |
| 120.0 |               |         |               |         |                |         | 5.4            |         | 6.2            |         | 4.4            | 4.4     |
| 125.0 |               |         |               |         |                |         |                |         | 5.4            |         | 3.6            | 3.8     |
| 130.0 |               |         |               |         |                |         |                |         | 4.8            |         | 3.0            | 3.0     |
| 135.0 |               |         |               |         |                |         |                |         | 4.0            |         | 2.4            | 2.4     |
| 140.0 |               |         |               |         |                |         |                |         | 3.4            |         |                |         |
| 145.0 |               |         |               |         |                |         |                |         | 2.8            |         |                |         |
| 150.0 |               |         |               |         |                |         |                |         | 2.4            |         |                |         |

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# Symbols glossary



Axles



Counterweight



Grade



Gear



Boom



Drive



Heavy duty jib



Radius



Boom elevation



Electrical system



Hoist



Rotation



Boom extension



Engine



Hookblock



Speed



Boom length



Extension



Hydraulic system



Steering



Boom nose



Frame



Lights



Suspension



Brakes



Fuel tank capacity



Oil



Swing



Cab



Outriggers



Outrigger controls



Tires



Transmission



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