

[Grove](#) [Manitowoc](#) [National Crane](#) [Potain](#)



GMK6300L

Grove Mobile Crane Product Line

GMK6300L: « *THE strongest 6axle with 80m boom* »



The New 6 axle *GMK family*



GMK6300L

- ▶ 300T Long boom crane
- ▶ 80m 7 section boom
- ▶ 37m Hydraulic luffing jib
- ▶ No MWL
- ▶ Replaces GMK6220L

Typical Applications

- ▶ General hire / taxi - fast set-up (speed)
- ▶ City centre, lifting at height (reach)
- ▶ Concrete panels, A/C units, tower cranes

Competition

- ▶ AC250-1, LTM1250-6.1 (Direct competitors)
- ▶ LTM1350-6.1 (main boom work)



GMK6400

- ▶ 400T Heavy duty crane
- ▶ 60m 5 section boom
- ▶ ~ 79m Conventional luffing jib
- ▶ Self-rigging MWL
- ▶ Replaces GMK6300

Typical Applications

- ▶ Heavy lift (very powerful loadcharts)
- ▶ Power stations, refineries, concrete work
- ▶ Bridge building, port work

Competition

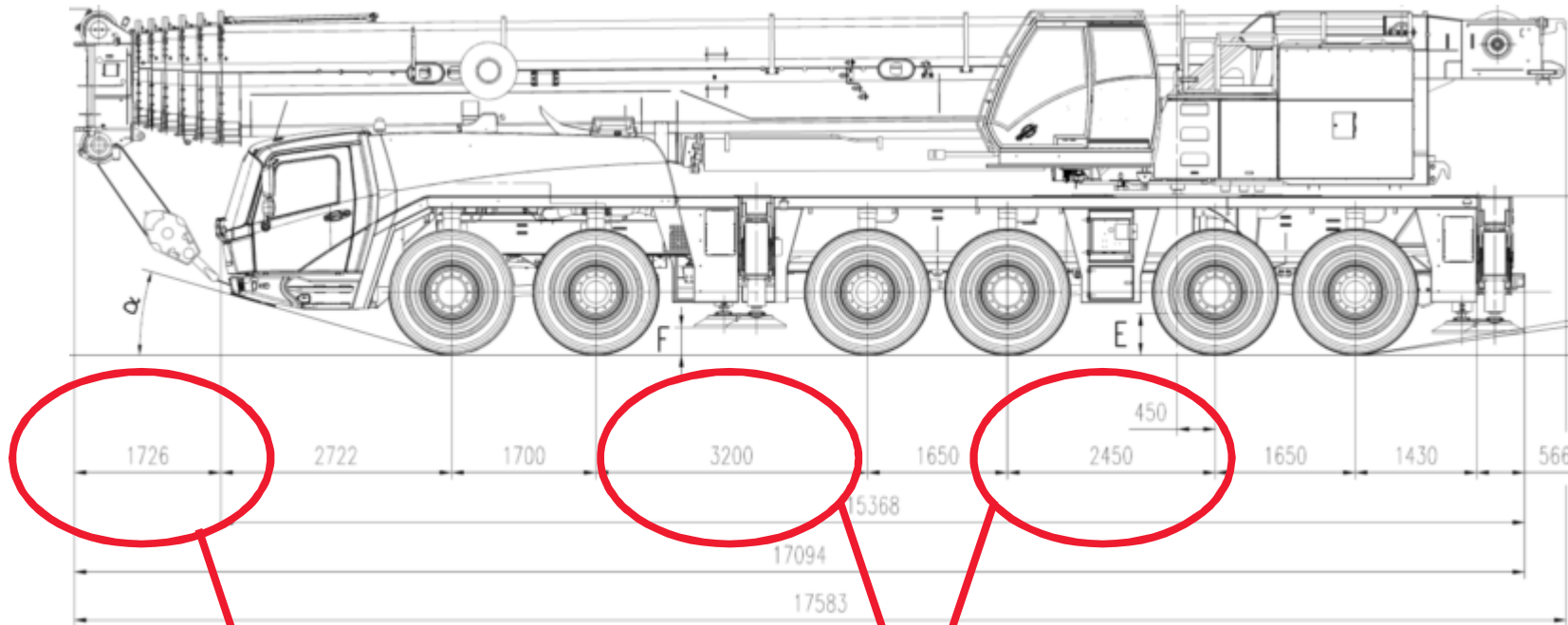
- ▶ AC350, LTM1350-6.1, ATF400G-6, AC300/6
- ▶ LTM1400-7.1 (some loadcharts, applications)

Carrier specification overview



- Engine: Mercedes OM 502 LA, 8 cylinder
 - Euromot IIIB: 405 kW at 1.800 rpm
 - Fuel capacity: 480 l (build in superstructure)
- Transmission: Allison 6-speed automatic transmission (4500SP)
Kessler 2-speed transfer case (VG2600)
- Suspension: MEGATRAK +170mm / -130mm
- Outriggers: 8.500 m, stroke 550mm, 5 positions
- Driver Cab: new designed two (three) man glass fiber - aluminum cabin
- Steering: latest "Steer by wire" – technology on 5th and 6th axle

Product dimensions of carrier



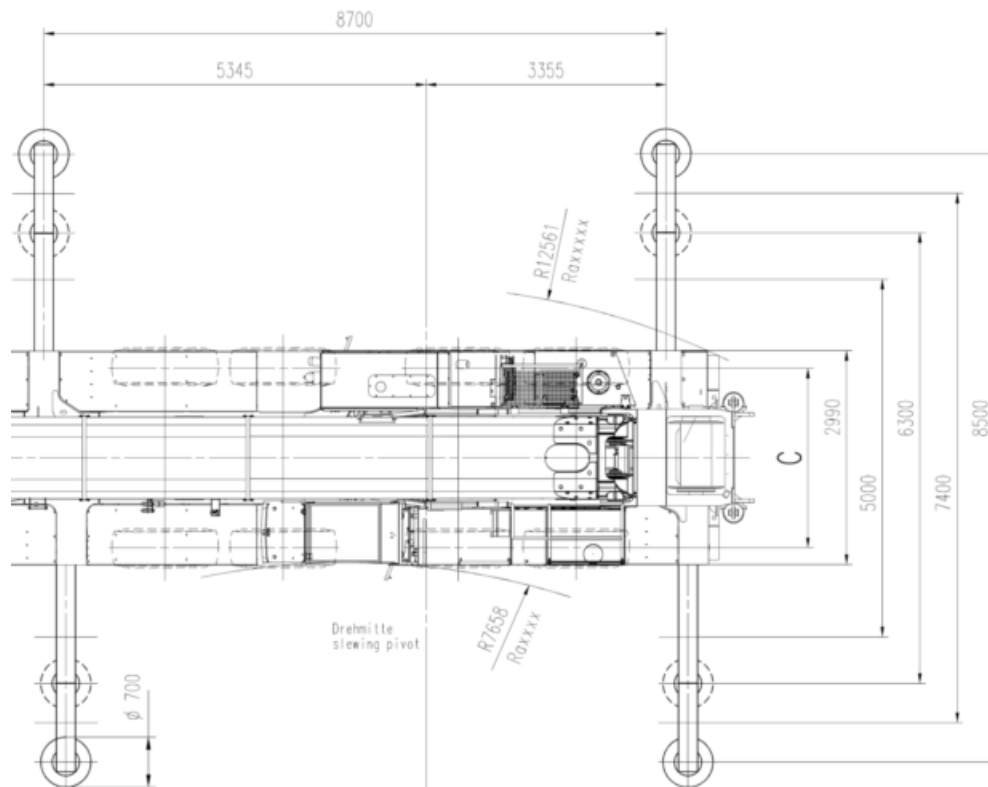
Height:
4m
(16",
20,5"
tires)

**Very good overhang
- under 2 m.**

**Ideal axle spread –
more than 8 ft.**

The competition has bigger overhang:
LTM1250-6.1 (> 2m)
LTM1350-6.1 (> 2m)

Product dimensions: Outrigger spread



Pad load indicator as standard!

5
outrigger positions
create an
ultimate flexibility

for every jobsite –
also on very narrow
terrain.

The competition has less flexibility:
LTM1250-6.1 (3 outrigger positions)
LTM1350-6.1 (4 outrigger positions)
AC250-1 (4 outrigger positions)
AC300/6 (4 outrigger positions)

Engine: Mercedes-Benz in carrier (OM502LA) and superstructure (OM926LA)

Latest engine technology including Tier 4i, stage Euromot IIb

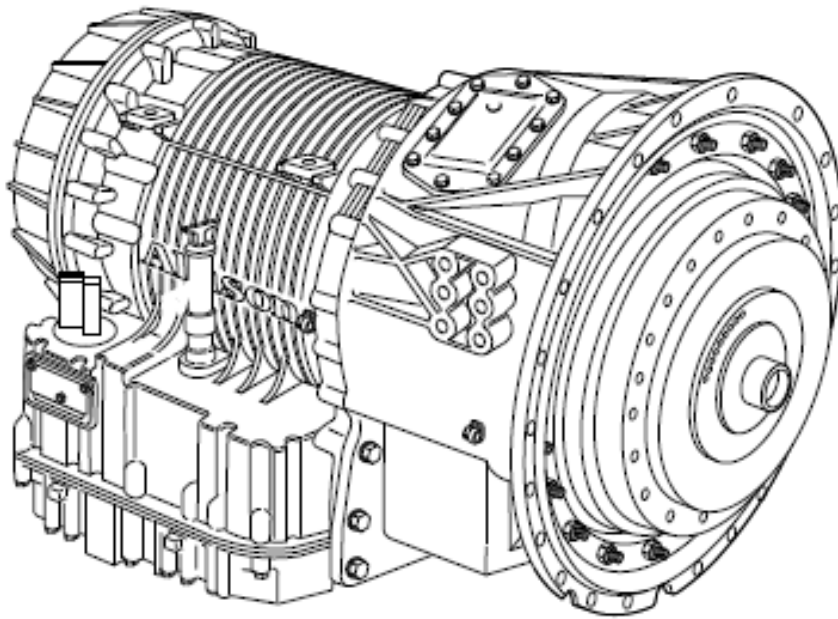


Water-cooled diesel engine:

- Turbocharged with intercooler
- High pressure fuel-injection system with unit injection pumps controlled by solenoid valves
- Electronic engine management
- OM 502 LA with 8 cylinder and 405kW
- OM 926 LA with 6 cylinder and 210kW
- Selective Catalytic Reduction – reduces the NO_x by 80%

Transmission: Full automatic Allison 4500 SP with retarder*

„strong, reliable and cost effective solution“



Allison automatics have been moving earth, in mines, construction sites, quarries, gravel pits for more than fifty years. They've proven to be durable and reliable in the most arduous duty cycles.

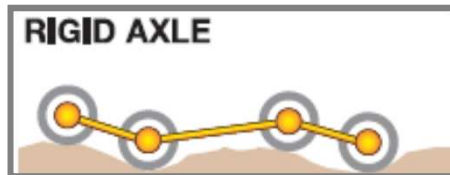
The technologically advanced electronic controls are programmed for the specific mobile crane situations and offer self diagnostic ability for easier maintenance.

Allison's integral retarder is part of the transmission and provides enhanced vehicle braking on hills, and while slowing a vehicle with a heavy load.

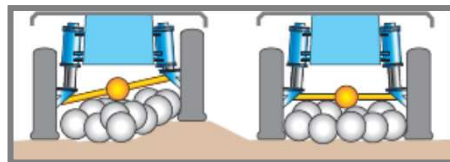
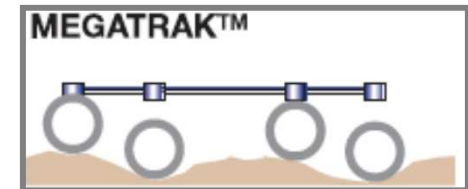
*(Retarder as optional equipment)

Suspension technology: Grove patented Megatrak™

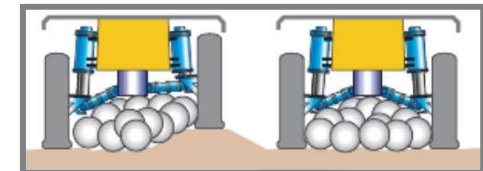
MEGATRAK™ is Grove's patented independent suspension and all-wheel steer System. Each wheel is able to remain on the ground at all times, so that stresses and weight are not continually transferred between axles.



Traditional suspension systems may raise the body of the crane, but do not increase ground clearance.



MEGATRAK™ does, as the differential is attached to the base of the carrier, offering a ground clearance up to 600 mm.



Suspension can be raised or lowered (both front/back and side to side by +170/-130 mm on models with top steered **MEGATRAK™** Cylinder +160/-130 mm) directly from the carrier cab and automatically leveled for road travel. **MEGATRAK™** also allows the use of a deeper carrier cross section, which improves the overall torsion strength of the crane.

Suspension technology: Grove patented Megatrak™

However, **MEGATRAK™** is not just about a comfortable and confident ride. The use of independent struts reduces the weight of the suspension system. These features make Grove all-terrains the strongest cranes available, with optimum lift characteristics.

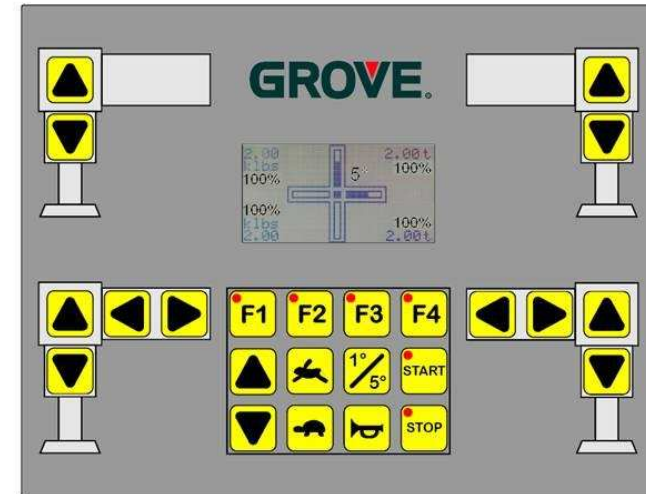
Reduced maintenance:

- **Reliable suspension system.**
- **Same suspension on almost all models.**
- **Driveline remains aligned all the time.**
- **Steering linkage is protected (positioned directly under the chassis).**



Driving and rigging on Jobsite

- The **GMK6300L** can be moved on jobsite with a maximum axle load of 28t in a configuration
 - a) main boom plus full counterweight (92,5t)
 - b) main boom, jib and extension plus counterweight (74,5t).
- **Time efficiency on jobsites!**



MMI (Men-Machine-Interface)

- The new MMI display allows the driving of the MEGATRAK™ from the carrier frame. Active adjustment of retracting and extending force without outriggers positioning possible –
Flexibility on jobsite to react on changing surfaces and required ground clearance.
- The outrigger pressure monitoring system is standard.

New carrier cabin for wide carrier frames

- Adaption of new look of drivers cabin from big AT cranes
- More driving comfort and better ergonomic instrumentation for driver
- Improved heating- and cooling system with air-condition as standard
- Better visibility thru cabin width
- Better aerodynamic
- Noise reduction
- Increased quality
- Rust free glass-fibre and aluminum composite

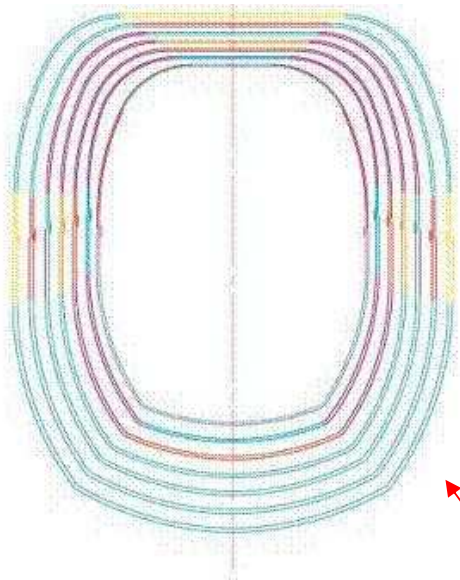


Superstructure specification overview

- Boom: 80 m 7-section with Grove MEGAFORM™ boom
- Engine: Mercedes OM 926 LA, 6 cylinder
210 kW at 1.200 – 1.600 rpm
Fuel capacity: 220 l
- Control: ECOS, EKS 5 full graphic display
- Cabin: Full vision 20° tilt aluminum cab
- Hoist: Drum style 22mm, line pull 104 kN (main and aux. hoist)
330 m rope length (3 parts of line to ground on long boom)



Boom technology: Grove patented Megaform™



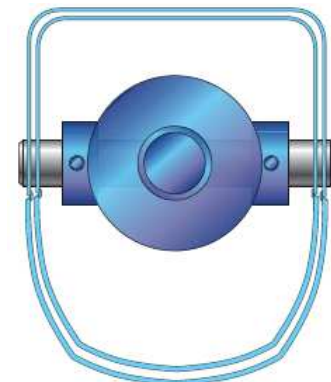
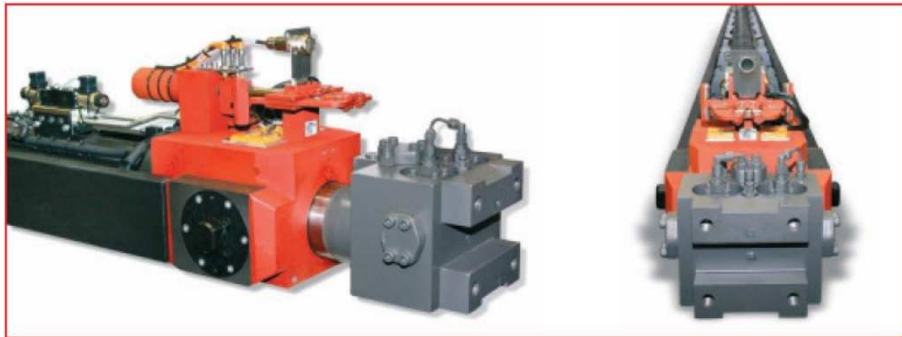
No Stiffeners on Base Section
(Saves Weight without loss of capacity) - 1100 Steel

MEGAFORM™

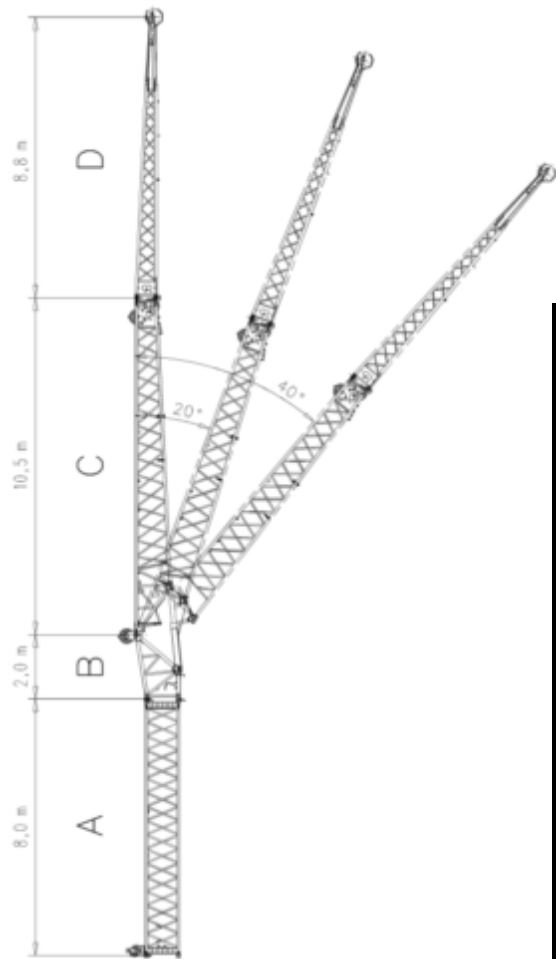
**7 Section 15,60 - 80,00 m Boom
(with Megaform Shape Base Section)**

Boom technology: Grove patented Twin Lock™

TWIN-LOCK™ is a fully hydraulic system with electronic controls. It features a single telescopic cylinder that used **two horizontally-mounted pins** to move a boom section into the required position. The use of two pins **increases security** and their position in the side of the boom means they operate in the neutral zone. The use of a single telescope cylinder **reduces weight** used elsewhere to strengthen the crane, and increases lifting capacity.



System length: Jib plus extension



	GMK	AC250-1	GMK	AC250-1
main boom	80m	77m	80m	77m
jib	29m	28m	29m	28m
luffing	20°	20°	40°	40°

28,0	3,3			
30,0	3,3			
32,0	3,3	2,3		
34,0	3,3	2,3		
36,0	3,2	2,3	2,7	
38,0	3,2	2,3	2,7	2,3
40,0	3,1	2,3	2,7	2,3
42,0	3,1	2,3	2,7	2,3
44,0	3,1	2,3	2,7	2,3
46,0	3,0	2,3	2,7	2,3
48,0	3,0	2,3	2,7	2,3
50,0	3,0	2,2	2,7	2,3
54,0	2,9	2,2	2,7	2,2
58,0	2,8	2,1	2,7	2,1
62,0	2,8	1,9	2,7	2,0
66,0	2,7	1,6	2,7	1,7
70,0	2,6	1,2	2,6	1,4
74,0	2,6	-	2,6	1,0
78,0	2,3	-	2,4	-
80,0	2,0	-	2,3	-
82,0	1,7	-	2,0	-
84,0	1,4	-	1,7	-
86,0	1,1	-	1,4	-
88,0	0,9	-	1,1	-

radius

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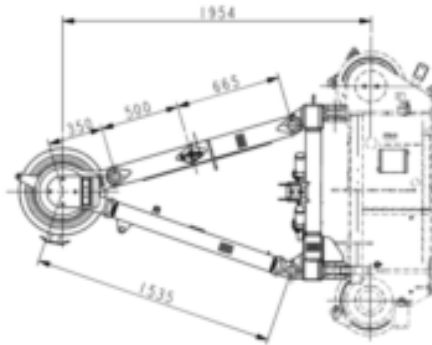
The **37m jib** consists of a 21m bi-folded swingaway and 2x8m intermediate section and leads to **117m system length** with

very strong load charts

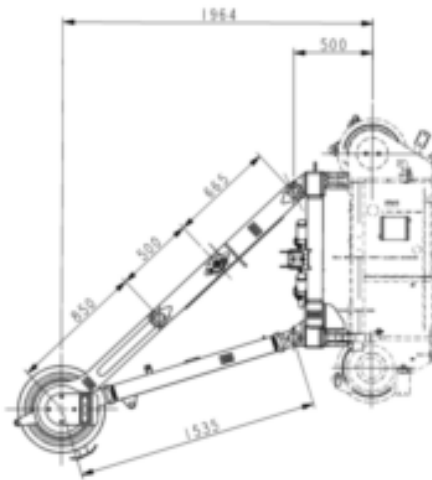
that allow lifts over obstacles in great heights.



Heavy Duty Jib



- Offsettable jib to 30°
- 2 sheeves
- max. capacity 38 t
- Stub jib can be fixed on side of main boom (left hand side; 740kg); swingaway right hand side



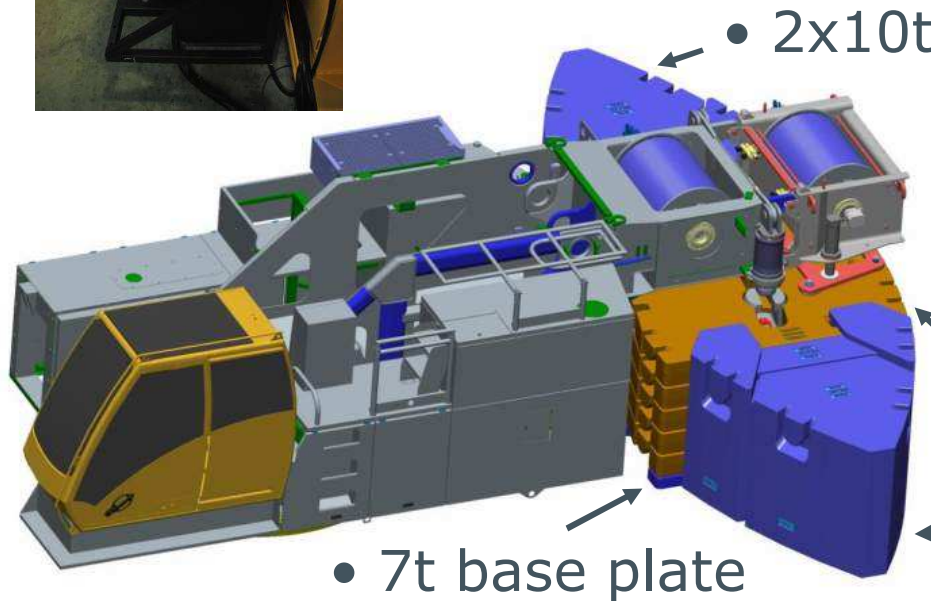
Strong loadcharts and high flexibility
due to offset angle – this gives
strength on short and long radius.

Product dimensions of superstructure



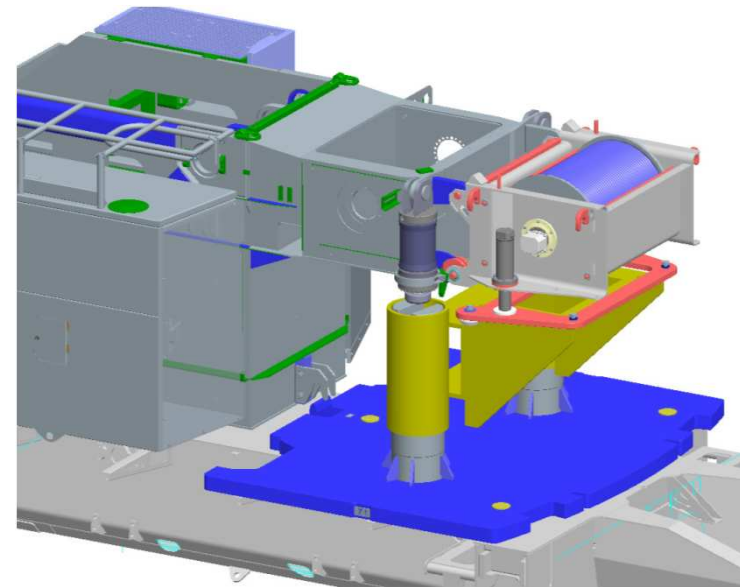
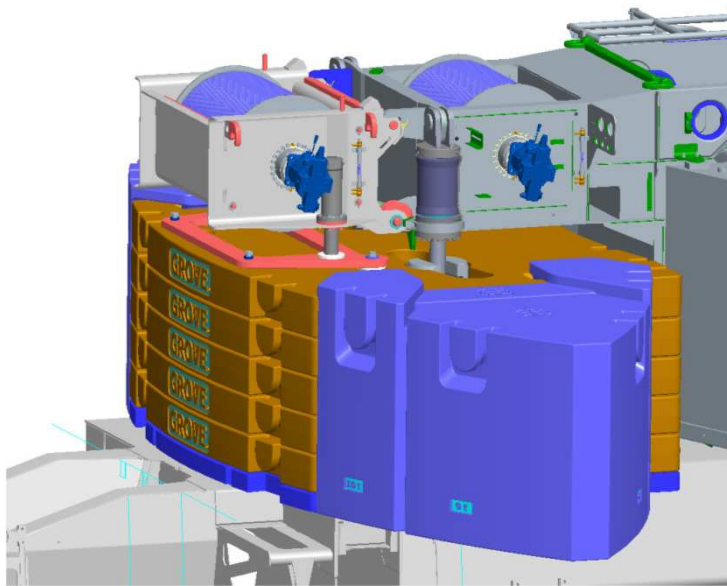
- 480 I carrier
- 220 I super
- 40 I "Adblue"

10t counterweight
slabs optimized for
transport and a **self**
rigging auxiliary hoist
for rigging without the
need of an auxiliary
crane.



- 2x10t
- 5x9,5t
- 2x9t
- 7t base plate

Counterweight and hoist procedure



The **self rigging** procedure of the **auxiliary hoist** is possible with various counterweight configurations. For the configuration with base plate only, a rigging frame simulates the counterweight.

New serial specification

Carrier

- Air condition in carrier cabin
- Outrigger pad load indicator with read out on superstructure and carrier
- CraneStar fleet management
- One additional strobe light
- Reversing camera system
- Stereo radio/ CD Player
- Work lights for outrigger beams
- Suspension control in outrigger control boxes

Superstructure

- Hoist camera incl. light
- Second spotlight on superstructure cab
- Stereo radio/ CD player
- One additional strobe light
- LMI status display (EN13000)
- Working range limiter

- 20 • Air conditioning



LMI status display (EN13000)

Crane Star

CraneSTAR A fleet management tool with several customer benefits!



helps to **monitor cranes**, working sites, warehouses, or fleet productivity (% use, misuse,...)

gives knowledge to help making **fact-based decisions** regarding on productivity; be more proactive in scheduling preventive maintenance, and make better decisions about equipments

increases security, which may lead to reduced insurance costs

allows to use data to prove the proper use of cranes to create an **higher resale value**

Lifting specification for various applications with long reach

Full counterweight 92t, max. outrigger base 8,70x8,50m

boom	15,58	26,07	36,81	47,52	52,87	63,85	69,32	74,77	80,00
3	190,00								
4	165,00	138,00							
5	143,00	130,00							
6	126,00	117,00	80,50						
7	112,00	106,00	80,50						
8	101,00	98,00	80,50	50,00					
9	91,50	90,00	80,00	50,00	38,00				
10	82,50	82,00	75,50	50,00	38,00				
12	61,50	66,50	67,00	48,50	38,00	22,50			
14		55,50	55,50	45,50	37,50	22,50	17,60	14,30	12,00
16		48,00	47,00	42,50	33,50	22,50	17,60	14,30	12,00
18		41,50	40,50	39,00	30,50	22,50	17,60	14,30	12,00
20		36,00	35,00	36,00	27,00	22,50	17,60	14,30	12,00
22		31,00	32,00	32,50	24,50	21,50	17,60	14,30	12,00
24			28,50	29,00	22,50	20,00	17,60	14,30	12,00
26			25,50	26,00	20,00	18,20	16,90	14,30	12,00
28			23,00	23,00	18,00	16,50	15,80	14,30	12,00
30			21,00	21,00	17,00	15,10	14,70	13,80	12,00
32			18,80	18,90	16,00	13,80	13,60	13,00	12,00
34				17,00	14,30	12,70	12,60	12,20	11,70
36				15,30	12,90	11,60	11,50	11,50	11,10
38				13,80	11,60	10,70	10,60	10,70	10,50
40				12,70	10,40	9,80	9,70	9,90	9,50
42				12,40	9,40	8,70	8,70	8,90	8,60
44					8,40	7,90	8,10	7,80	8,10
46					7,60	7,60	7,70	7,20	7,20
48					6,90	7,20	7,30	6,70	6,40
50						6,90	6,90	6,20	5,70
54						6,30	6,30	5,00	4,40
58						5,90	5,70	3,70	3,20
62							5,20	2,60	2,20
66								1,70	1,40

radius

22 GMK6300L

Tower crane rigging.



Lifting of aircon or elevator equipment

Grove Manitowoc National Crane Potain



Loadcharts: Tower crane rigging as the focus

MDT308

70 m Jib = **14,3 t**; Slewing ring (pivot) = 9,86 t

Max Height Under Hook = **65 m**

Competitors cranes:

- Liebherr: 250 EC-B 12 LITRONIC
- Wolffkran: 6531.12
- Terex: CTT231 12



MD265C

65 m jib = **12,8 t**; Slewing ring (pivot) = 5,3 t

Max Height Under Hook = **65 m**

Competitors cranes:

- Liebherr: 245 EC-H 12 LITRONIC
- Wolffkran: 6531.12
- Terex: CTT231 12



MR415

60 m jib = **11,9 t**; Slewing ring (pivot) = 12 t

Max Height Under Hook = **60 m**

Competitors cranes:

- Liebherr: 355 HC-L 12/24 LITRONIC
- Wolffkran: 355B
- Terex: CTL400



Comparison vs. Demag AC250-1 (full cw)

boom	GMK	AC250-1	GMK	AC250-1	GMK	AC250-1	GMK	AC250-1	GMK	AC250-1
	47,52	46,70	52,87	52,90	63,85	62,50	69,32	72,10	80,00	80,00
8	50,00									
9	50,00	47,40	38,00							
10	50,00	44,40	38,00							
12	48,50	39,10	38,00	34,20	22,50					
14	45,50	34,20	37,50	30,60	22,50	23,60	17,60	14,70	12,00	
16	42,50	31,00	33,50	27,10	22,50	21,60	17,60	14,70	12,00	
18	39,00	28,40	30,50	24,70	22,50	19,90	17,60	14,40	12,00	9,30
20	36,00	26,10	27,00	22,30	22,50	18,10	17,60	13,60	12,00	9,30
22	32,50	24,70	24,50	20,00	21,50	16,80	17,60	12,80	12,00	9,30
24	29,00	23,30	22,50	18,20	20,00	15,50	17,60	12,10	12,00	9,30
26	26,00	21,90	20,00	16,90	18,20	14,30	16,90	11,40	12,00	9,30
28	23,00	20,50	18,00	15,80	16,50	13,00	15,80	10,70	12,00	9,30
30	21,00	19,50	17,00	14,80	15,10	12,10	14,70	10,00	12,00	9,00
32	18,90	18,70	16,00	13,90	13,80	11,20	13,60	9,30	12,00	8,50
34	17,00	17,80	14,30	13,30	12,70	10,30	12,60	8,70	11,70	8,00
36	15,30	17,00	12,90	12,70	11,60	9,50	11,50	8,20	11,10	7,50
38	13,80	15,60	11,60	12,00	10,70	8,80	10,60	7,60	10,50	7,00
40	12,70	14,30	10,40	11,40	9,80	8,30	9,70	7,10	9,50	6,60
42	12,40	13,20	9,40	10,90	8,70	7,90	8,70	6,60	8,60	6,20
44		10,70	8,40	10,60	7,90	7,50	8,10	6,00	8,10	5,80
46			7,60	10,20	7,60	7,10	7,70	5,70	7,20	5,40
48			6,90	9,90	7,20	6,70	7,30	5,30	6,40	5,00
50					6,90	6,40	6,90	4,60	5,70	4,60
54					6,30	5,90	6,30	4,00	4,40	3,90
58					5,90	5,40	5,70	3,00	3,20	3,30
62							5,20		2,20	2,80
66									1,40	2,30
radius										

+26%
advantage
on long
boom

and

+10%
advantage
over all

Comparison vs. Demag AC300/6 (full cw)

boom	GMK	AC300	GMK	AC300	GMK	AC300	GMK	AC300	GMK	AC300
	47,52	48,40	52,87	53,90	63,85	64,00	69,32	xxx	80,00	xxx
8	50,00									
9	50,00	55,90	38,00							
10	50,00	53,00	38,00	41,50						
12	48,50	47,90	38,00	41,40	22,50					
14	45,50	43,50	37,50	37,90	22,50	26,30	17,60		12,00	
16	42,50	39,60	33,50	34,80	22,50	24,50	17,60		12,00	
18	39,00	36,00	30,50	32,10	22,50	22,90	17,60		12,00	
20	36,00	32,70	27,00	29,80	22,50	21,40	17,60		12,00	
22	32,50	29,70	24,50	27,70	21,50	20,10	17,60		12,00	
24	29,00	27,20	22,50	25,80	20,00	18,90	17,60		12,00	
26	26,00	25,00	20,00	24,00	18,20	17,90	16,90		12,00	
28	23,00	23,10	18,00	22,30	16,50	17,00	15,80	?	12,00	?
30	21,00	20,70	17,00	20,80	15,10	16,10	14,70		12,00	
32	18,90	19,20	16,00	19,10	13,80	15,30	13,60		12,00	
34	17,00	17,80	14,30	17,20	12,70	14,60	12,60		11,70	
36	15,30	16,20	12,90	15,80	11,60	13,90	11,50		11,10	
38	13,80	15,00	11,60	14,90	10,70	13,30	10,60		10,50	
40	12,70	14,30	10,40	14,10	9,80	12,70	9,70		9,50	
42	12,40	13,30	9,40	12,90	8,70	12,10	8,70		8,60	
44		12,20	8,40	11,90	7,90	11,30	8,10		8,10	
46		11,30	7,60	10,90	7,60	10,30	7,70		7,20	
48			6,90	10,00	7,20	9,40	7,30		6,40	
50				9,30	6,90	8,60	6,90		5,70	
54				8,50	6,30	7,20	6,30		4,40	
58					5,90	6,00	5,70		3,20	
62							5,20		2,20	
66									1,40	

radius

Generally a strong crane for a different sort of application.

The

GMK6300L

has a benefit of

+16m more
boom
length.

Generally a different crane segment that operates with luffer and tensioning.

Comparison vs. Liebherr LTM1250 (full cw)

boom	GMK	LTM1250	GMK	LTM1250	GMK	LTM1250	GMK	LTM1250	GMK	LTM1250
	47,52	46,70	52,87	51,90	63,85	62,50	69,32	72,00	80,00	xxx
8	50,00	42,50								
9	50,00	40,50	38,00	33,50						
10	50,00	38,50	38,00	32,50						
12	48,50	37,00	38,00	31,50	22,50	20,70				
14	45,50	33,50	37,50	29,20	22,50	20,60	17,60	14,00	12,00	
16	42,50	29,90	33,50	26,60	22,50	19,90	17,60	14,00	12,00	
18	39,00	27,20	30,50	24,30	22,50	18,90	17,60	13,90	12,00	
20	36,00	25,20	27,00	22,10	22,50	17,70	17,60	13,50	12,00	
22	32,50	23,70	24,50	20,00	21,50	16,50	17,60	13,10	12,00	
24	29,00	22,40	22,50	18,40	20,00	15,40	17,60	12,40	12,00	
26	26,00	21,10	20,00	17,20	18,20	14,40	16,90	11,70	12,00	
28	23,00	20,00	18,00	16,00	16,50	13,40	15,80	11,00	12,00	
30	21,00	18,90	17,00	15,00	15,10	12,50	14,70	10,40	12,00	
32	18,90	18,10	16,00	14,00	13,80	11,70	13,60	9,80	12,00	
34	17,00	17,40	14,30	13,10	12,70	10,90	12,60	9,20	11,70	
36	15,30	16,80	12,90	12,60	11,60	10,20	11,50	8,70	11,10	
38	13,80	16,20	11,60	12,00	10,70	9,60	10,60	8,10	10,50	
40	12,70	15,40	10,40	11,60	9,80	9,00	9,70	7,70	9,50	
42	12,40	14,30	9,40	11,10	8,70	8,50	8,70	7,20	8,60	
44			8,40	10,60	7,90	8,10	8,10	6,70	8,10	
46			7,60	10,20	7,60	7,70	7,70	6,30	7,20	
48			6,90	9,80	7,20	7,40	7,30	5,90	6,40	
50					6,90	7,00	6,90	5,50	5,70	
54					6,30	6,40	6,30	4,90	4,40	
58					5,90		5,70	4,30	3,20	
62							5,20	3,70	2,20	
66									1,40	

+8m boom

+31%
advantage
on long
boom
and

+10%
advantage
over all



Comparison vs. Liebherr LTM1350 (full cw)

boom	GMK	LTM1350	GMK	LTM1350	GMK	LTM1350	GMK	LTM1350	GMK	LTM1350
	47,52	45,30	52,87	55,00	63,85	62,50	69,32	70,00	80,00	xxx
8	50,00	51,90								
9	50,00	49,70	38,00	31,90						
10	50,00	47,30	38,00	31,40						
12	48,50	44,80	38,00	30,30	22,50	20,80				
14	45,50	40,10	37,50	29,20	22,50	20,70	17,60	16,80	12,00	
16	42,50	36,20	33,50	26,90	22,50	19,20	17,60	15,70	12,00	
18	39,00	32,50	30,50	24,90	22,50	18,20	17,60	14,90	12,00	
20	36,00	30,00	27,00	23,00	22,50	17,10	17,60	14,10	12,00	
22	32,50	27,90	24,50	21,30	21,50	16,10	17,60	13,30	12,00	
24	29,00	26,20	22,50	19,60	20,00	15,10	17,60	12,60	12,00	
26	26,00	24,50	20,00	18,10	18,20	14,20	16,90	11,90	12,00	
28	23,00	23,20	18,00	16,80	16,50	13,30	15,80	11,20	12,00	
30	21,00	22,00	17,00	15,50	15,10	12,40	14,70	10,50	12,00	
32	18,90	20,90	16,00	14,40	13,80	11,60	13,60	9,90	12,00	
34	17,00	19,90	14,30	13,30	12,70	10,90	12,60	9,20	11,70	
36	15,30	19,00	12,90	12,50	11,60	10,30	11,50	8,60	11,10	
38	13,80	18,30	11,60	11,70	10,70	9,60	10,60	8,10	10,50	
40	12,70	17,60	10,40	11,10	9,80	9,00	9,70	7,60	9,50	
42	12,40	14,70	9,40	10,50	8,70	8,50	8,70	7,00	8,60	
44			8,40	10,00	7,90	7,90	8,10	6,60	8,10	
46			7,60	9,60	7,60	7,50	7,70	6,20	7,20	
48			6,90	9,20	7,20	7,00	7,30	5,70	6,40	
50				8,80	6,90	6,50	6,90	5,00	5,70	
54				8,50	6,30	5,80	6,30	4,60	4,40	
58					5,90	5,10	5,70	4,30	3,20	
62							5,20	3,50	2,20	
66									1,40	

+10m boom

+32%
advantage
on long
boom
and
even
over all

radius Generally a different crane segment that operates with luffer and tensioning.

Competitor overview

	Grove GMK6300L	Grove GMK6220L	Liebherr LTM1250 6.1	Demag AC250-1
year of manufacturing	2011	2001	2002	2004
Nominal Capacity	300	220	250	250
Boom Length	80	72	72	80
Max. Counterweight	92,5	70	97,5	96,6
loadmoment	840	685	840	884
Transmission	Allison automatic / 4500 SP / 6 speed	Allison automatic CLT 755 / 5 forward, 1 reverse / transfer case with 2 speeds and inter axle differential lock	ZF TC Tronic / 12 forward, 2 reverse / transfer case with transfer differential	ZF AS Tronic / 16 forward, 2 reverse / 2 range transfer case

	Grove GMK6300L	Grove GMK6300	Liebherr LTM1350 6.1	Demag AC300/6
year of manufacturing	2011	2000	2009	2008
Nominal Capacity	300	300	350	300
Boom Length	80	60	70	64
Max. Counterweight	92,5	100	140	96,2
loadmoment	840	840	1050	914
Transmission	Allison automatic / 4500 SP / 6 speed	Allison automatic CLT 755 / 5 forward, 1 reverse / transfer case with 2 speeds and inter axle differential lock	ZF TC Tronic / 12 forward, 2 reverse / transfer case with transfer differential and torque converter	ZF AS Tronic / 16 forward, 2 reverse / 2 stage transfer case

A strong 6 axle All Terrain crane combined with extraordinary customer benefits as...

boom length

and a

full automatic transmission

that results in

ideal drivability on jobsite.



