

# Kalmar Super Heavy Forklifts.

DCG 600-720



Making light work of  
your heaviest loads.

 **KALMAR**



# Ready to take on your heaviest loads.

Introducing a powerful and versatile heavy lifter, the new Kalmar Super Heavy Forklift truck. Capable of shifting loads of up to 72 tons, it handles your heaviest loads with ease. Ideal for steel, concrete and other heavy industries.

## Quality you can trust.

With over 100,000 built since 1949, Kalmar forklifts are known for their great build quality and reliability. With less moving parts, easily accessible servicing points and industry leading maintenance intervals you will experience less downtime and higher availability rates. Coupled with Kalmar's global support and service network, plus long warranty periods, you will have a machine you can rely on.

## Highly productive.

No matter what you are lifting in your foundry, factory, terminal or assembly line, the new Kalmar Super Heavy Forklift will do it efficiently, effectively and safely. It can lift the heaviest loads without compromising its maneuverability, agility or the safety and comfort of your operator. With increased lowering and lifting speeds and a highly efficient and powerful driveline, you can expect a forklift that will become a central part of your logistics chain.

Save time.



Save money.



## Pentti Hämeenaho Oy Steel Mill in Raabe, Finland.

Pentti Hämeenaho have two new Kalmar Super Heavy Forklifts on site handling up to two steel coils at a time, weighing up to 30 tons each. These coils are 2.2m in diameter and 2m wide. The new forklift can handle one coil on each fork or can move its forks to a "kissing" position if only one coil needs to be moved.

## Steel Industry.

With steel coils weighing up to 30 tons each, our new Super Heavy Forklift is able to lift two coils at once and move them quickly and efficiently around the foundry. It is also able to handle a range of heavy steel slabs and pipes.

## Wind Industry.

With wind tower sections exceeding 100 tons each, our new super heavy forklifts when working in tandem, will be able to lift, shift and load these sections with ease.

## Heavy Industry.

Flat, round or bulky – our new Super Heavy Forklift, with a wide range of lifting attachments, will be able to handle all of your heavy lifting needs up to 72 tons.



# Efficiency without compromise.

Often a more efficient driveline, means compromising on power. By combining a highly efficient and powerful engine with an 5+3 speed gearbox and reliable drive axle, you will have all the power you need, yet benefit from reduced fuel consumption. All our engine alternatives are compliant with the latest EU Stage 4/Tier 4 emissions standards.

#### All the lifting speed you need, when you need it.

Our variable hydraulic lifting system is able to sense the weight of the load and apply the right amount of power to move it quickly and efficiently. This system can reduce your lifting cycles by up to 40% in comparison to conventional lifting systems.



0,25 m/s without load  
0,20 m/s with load (at 80%)



0,28 m/s without load  
0,31 m/s with load (at 80%)

#### Choose your performance level.

Our super heavy forklift comes with ECO-Drive, giving three different power modes to choose from. The three different power modes are:

**Power Mode:** when speed is of the essence. With Power Mode you will be able to move quickly around the yard, lift and lower at full speed, without compromising on safety.

**Normal Mode:** when you need to retain some speed. With a slightly reduced engine speed you can expect 5-15% lower running and fuel costs than Power Mode.

**Economy Mode:** when you need the lowest running costs. With the engine speed reduced even further you can expect 10-25% lower running and fuel costs.

Save up to 25%  
on fuel when  
using our  
ECO-Drive  
Economy Mode.



# Comfortable and smart.

Our new super heavy forklift truck comes fitted with our EGO cabin, the ultimate operating environment for your driver.

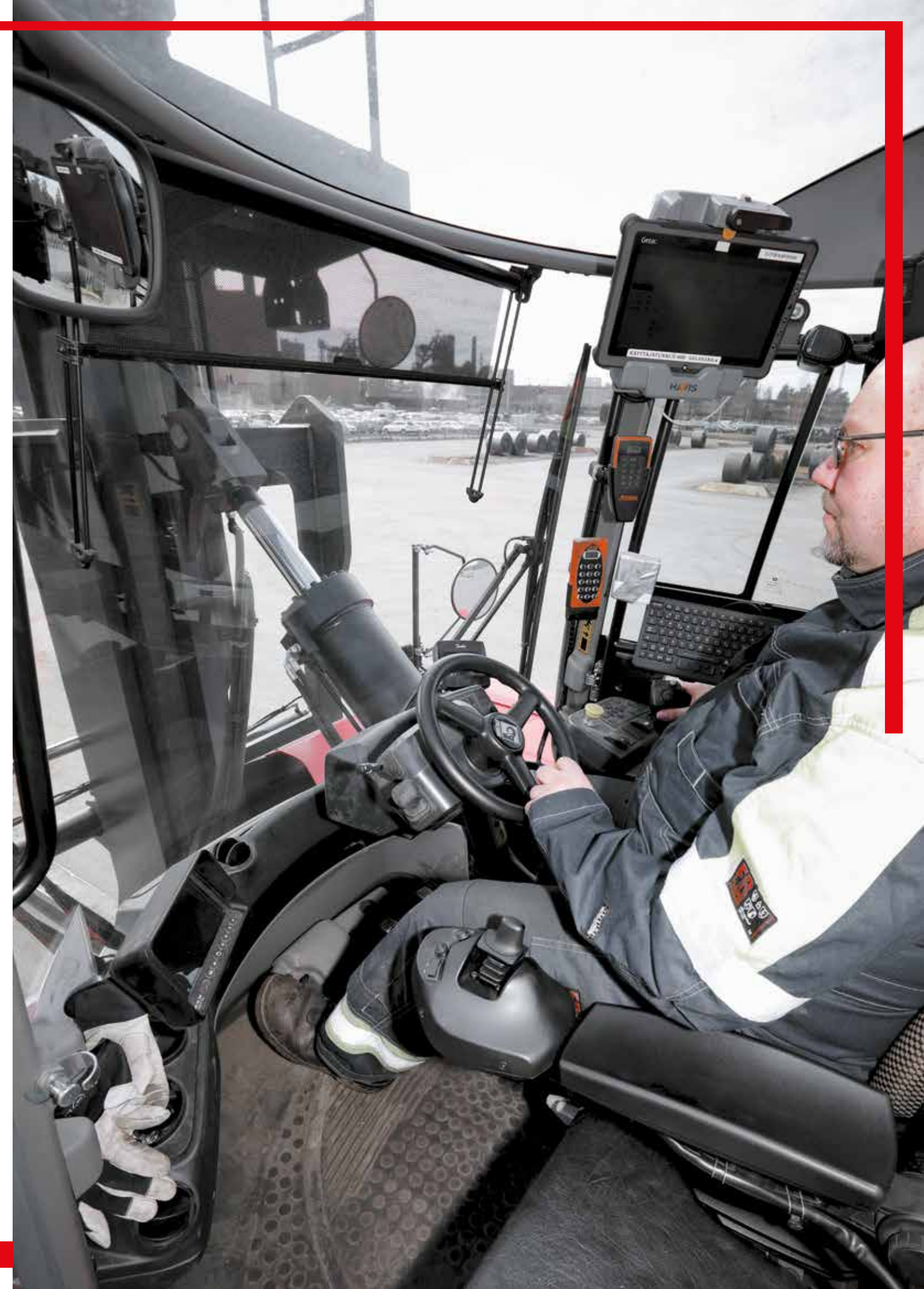
With its ergonomic design, smarter functions and a more intuitive workspace, your drivers will be able to operate at their most productive every day, without compromising on safety.

**Clear view:** A-posts have been replaced with slim B-posts, to provide greater visibility in all directions: forwards, backwards, to the side and upwards. Our combined roof/front wiper system cleans a bigger area of the front windscreen and the transparent roof than before, making sure your forward and upwards view stays extra clean and clear at all times.

**Easy to operate:** With levers or a new joystick, electronically adjustable work console and side tilt steering wheel, the controls are all designed to minimise driver fatigue and maximise operational efficiency.

**More comfortable:** With an adjustable driver's seat, a new fault safe pedal system and climate control system with smarter controls, your operator will benefit from improved ventilation, heating and cooling, plus a cabin with superior interior comfort.

**Extra smart:** Our user interface combines sight, sound and touch to create a perfectly balanced operating environment with a new colour display at its heart. Advanced diagnostics allows for greater operational control and safety.



## Remote monitoring.

You can monitor your machine's and driver's performance with Kalmar SmartFleet – our equipment monitoring tool. Data is transmitted from your machine to the Kalmar cloud. You can access this information remotely and make decisions that have a positive impact on the productivity and efficiency of your forklift.





# Building lifetime value.



The initial price of your new forklift is only part of the total running cost of your machine. What really matters is being able to reduce these costs without compromising on the productivity of your new machine, which is why our super heavy forklift comes with numerous costs saving features.



Up to 5%

reduction in fuel costs from our range of highly efficient engines, which are all EU Stage 4 emissions standards compliant.

Up to 10%

reduction in fuel costs from our variable hydraulic systems and cooling fans which adjust their effort to the load being moved.

Up to 25%

reduction in fuel with economy drive mode when using ECO-Drive.



Highest resale values.

With all Kalmar machines you can also expect the highest market re-sale values as all of our machines are known for their reliability and robustness.

## Choose your own upgrade options.



**Reverse Warning System (RWS).**

Knowing what's going on behind you is critical when other personnel are present. Four rear sensors and a reversing camera relay real-time information to an in-cabin display, alerting the driver to any dangers, increasing personnel and driver safety.



**Reverse Beeper System.** When your staff are working side-by-side with moving vehicles there is always a safety risk. Installing a reverse beeper system provides a clear acoustic alert when the machine is reversing so personnel can make sure they stay out of harm's way at all times.



**Heat Protection Package.**

To protect your machine and operator from extreme heat generated in foundries, where molten metal can reach 2000°C. All hoses in the mast and carriage are heat protected and an extra windshield is fitted to protect the cabin from splashes from the vat.



**Tyre Pressure Monitoring System.**

Helps to reduce wear and tear on tyres which results in reduced fuel consumption. Bluetooth sensors keep the driver advised of the condition of the tyres at all times. Active care of your tyres can result in a 10-40% increase in tyre life and up to a 10% decrease in fuel consumption.



**Alco-Lock.**

To ensure your driver is at their best when operating your equipment you can install an Alco-Lock system. This system makes sure that the driver meets alcohol blood level standards before being able to start the machine, much like a breathalyser.



**Additional lighting.**

If you have to operate your machine at night, extra lighting can bring greater operational visibility and safety for personnel. You can choose additional LED working lamps on your cabin roof, on the mast or placed at the front or rear of your forklift.





# All the support you need.



Our job doesn't stop once we deliver your new forklift truck. We can also offer a range of support services that help keep your new equipment running at its optimal best. With a global network of over 1500 service and support staff in 120 countries, we will always have someone nearby to give you the support you need.

#### **Kalmar Care, making sure your business never stops.**

We can offer you four different types of service and maintenance contracts, for any brand of equipment. Each is designed to help you improve your operational efficiency, drive productivity and secure financial predictability. Each contract type includes a set of standardised service modules that you can tailor to meet your business needs. Here is an overview of the four different levels:



#### **The four flexible types of service contracts.**

##### **Kalmar Support Care**

We support your maintenance processes on demand.

- Availability of competent people with the right tools and parts
- Addition of skills to existing maintenance organisation.

##### **Kalmar Essential Care**

We perform your agreed maintenance tasks proactively.

- Availability of competent people with the right tools and parts
- Higher degree of financial predictability
- Reduced operational risk to customer
- Improved availability of machines.

##### **Kalmar Complete Care**

We meet your complete maintenance requirements.

- Improved predictive maintenance
- Low operational risk to customer
- Reduced equipment downtime
- Reduced total cost of operation
- Increased operational predictability.

##### **Kalmar Optimal Care**

We optimise your business performance.

- Guaranteed availability
- Reduced tied-in capital
- Improved business performance
- Increased peace of mind.

## Kalmar Genuine Parts.

#### **When the right part matters.**

When something needs to be replaced you need a spare part that meets your exact needs – urgently. Kalmar offers a rapid delivery service for over 50,000 premium-quality genuine parts to anywhere in the world, with installation support if needed. You may also want to consider outsourcing all or part of your spare parts management and inventory control. Kalmar Parts Care makes sure critical spare parts are always on hand so your equipment downtime is kept to a minimum. Each Kalmar Parts Care plan is based on your individual needs, so talk to us today and see how we can lift your parts availability, while reducing your inventory costs.



## Financing options for you.

#### **Lease or rent.**

You may choose to buy your new forklift truck outright or consider leasing or renting your equipment. Kalmar offers a range of leasing and renting options that give you the financial predictability you need and the option to upgrade your equipment after a fixed period. With our leasing packages you can focus on your core operations, while we perform all the service and maintenance needs required by your equipment. Kalmar can also assist you in trading in or re-selling your old equipment. No matter what your service and support needs are, make sure that you speak to your local Kalmar team first.

## Kalmar Training Academy.

Our training academy offers a range of courses for both your technicians and operators. Technicians will be given the knowledge that they need to maintain your new equipment in top condition. Operators will be shown how to get more from their equipment. They will learn how to improve the efficiency of their driving and what needs to be checked daily before operating. Courses are a mix of theory and hands-on experience and can be held at Kalmar or at your site.





# Drive train performance.

		DCG600-720LB	DCG600-720LB	
<b>ENGINE</b>	Manufacturer's type designation	Volvo TAD1172VE	Volvo TAD1152VE	
	Fuel, type of engine	Diesel, 4-stroke	Diesel, 4-stroke	
	Rating ISO 3046 / at revs	kW/hp - rpm	285/382 - 1700	285/382 - 1700
	Peak torque ISO 3046 / at revs	Nm / rpm	1938/ 1100-1300	1938/ 1100-1300
	Number of cylinders / displacement	cm <sup>3</sup>	6 / 10840	6 / 10840
	Fuel consumption, normal driving	l/h	16-22	16-22
	AdBlue consumption, normal driving	% of diesel	3-5	-
Emission standard		Stage IV	Stage III	
<b>GEARBOX &amp; MISC</b>	Manufacturer's type designation	ZF-5WG-311	ZF-5WG-311	
	Clutch, type	Torque converter	Torque converter	
	Gearbox, type	Hydrodynamic Powershift	Hydrodynamic Powershift	
	Numbers of gears, forward / reverse	5 / 3	5 / 3	
	Alternator, type / power	W	AC / 4200	AC / 4200
	Starting battery, voltage / capacity	V / Ah	2x12 / 145	2x12 / 146
	Driving axle, manufacturer / type		Kessler D111 WDB / Differential & hub reduction	Kessler D111 WDB / Differential & hub reduction

# Performance.

		DCG600-15LB	DCG620-15LB	DCG650-12LB	DCG680-12LB	DCG700-12LB	DCG720-12LB	
<b>PERFORMANCE, VOLVO TAD 1172VE</b>	Lifting speed	Unloaded (m/s)	0,25	0,25	0,25	0,22	0,22	0,22
		At 80% of rated load (m/s)	0,20	0,20	0,20	0,18	0,18	0,18
	Lowering speed	Unloaded (m/s)	0,28	0,28	0,28	0,26	0,26	0,26
		At 80% of rated load (m/s)	0,31	0,31	0,31	0,29	0,29	0,29
	Travelling speed, F / R	Unloaded (km/h)	25 / 18	25 / 18	25 / 18	27/19	27/19	27/19
		At rated load (km/h)	22 / 17	22 / 17	22 / 17	22/17	22/17	22/17
	Gradeability, max.	Unloaded (%)	44	43	44	34	34	34
		At rated load (%)	24	23	23	18	18	18
	Gradeability, at 2 km/h	Unloaded (%)	30	29	30	26	25	26
		At rated load (%)	16	16	16	14	13	13
	Drawbar pull	Max. (kN)	370	370	370	320	320	320
	Noise level, inside	LpAZ*, EGO cabin (dB(A))	73	73	73	73	73	73
		LpAZ*, EGO cabin OHG (dB(A))	-	-	-	-	-	-
	Noise level, outside	LWA** (dB(A))	112	112	112	112	112	112

\* Noise level according to EN12053

\*\* Noise level according to 2000/14/EC

# Standard.

## Chassis/Body

- Towing pin
- Steps with anti-slip protection
- Rear view mirror left and right side mounted on front mudguards
- Strong and protective mudguards

## Cabin

- EGO Cabin
- Clear and tempered panes of safety glass, thickness 6 mm
- Std seat incl. 2-point belt with (orange).
- Clear windows incl. sliding windows in left and right door
- Complete doors with locks left and right side.
- Complete manoeuvre system right hand console incl. light controls, toggle wheel for display, levers for load handling system (electric adjustable, 2-ways.)
- Multi function lever left side incl. horn, turn signal
- Brake system with pedal left and right side.
- Internal comfort incl. mirror, handles, interior lighting etc.
- Wiper and washers front/rear and roof window
- Hydraulic steering system incl. electrically adjustable steering wheel in height, manually adjustable laterally and longitudinally with steering wheel knob
- External reverse lights
- Electric cab tilting
- Instep handle, left side
- Automatic heat and ventilation (ECH) with fresh air inlet filter
- Speed control pedal right side
- Kalmar std key system
- Cup holder
- Coat hook

- Colour display:
  - Fuel level, indicator
  - Engine, transmission temperature
  - Oil pressure engine
  - Battery voltage
  - Clock and date
  - Hour meter
  - Service time indicator
  - Speed
  - Engine speed (RPM)
  - Various information via pop-up
  - AdBlue indicator

## Steering system

- Steering axel Kalmar, including double acting steering cylinder

## Drivetrain

- Drive axle: Kessler D111

## Hydraulics

- Electrical servo
- Level sight glass on hydraulic oil tank
- Load sensing hydraulics
- Return line filters
  - Separated dual oil tanks
- Automatic raised engine rpm when load handling function is used
- Tilt angels std 10F/10B

## Electric system

- Electrical system 24 V
- Rear lights and brake lights, LED
- Working lights on front mudguards, LED
- Working light mast 2 pcs
- Indicator lamps incl. hazard lights, LED
- Main power switch

## Wheels

- Front: 21.00x35
- Rear: 21.00x35

## Colour

- Cab: frame RAL 7011/70", covers "RAL 7021/10"
- Chassis: Kalmar Red 2012 (Base ref.RAL 3000/75)
- Lifting equipment: Kalmar Black (Base ref.RAL 7021/30)

## Documentation & decals

- Operators manual
- Maintenance manual
- Parts catalouge
- Load diagram in cab
- Warning decals
- Information decals
- Diagram, fuses
- Noise plate (legal requirement in EU/EEC)





[www.kalmarglobal.com](http://www.kalmarglobal.com)

Published by Kalmar, part of Cargotec. Copyright Cargotec. All rights reserved.