



**Kalmar Heavy Forklifts.**  
**DCG180-330**

18 – 33 tonne capacity.



# A vital part of your logistics.

No chain is stronger than its weakest link, as the saying goes. Nothing could be more true when it comes to managing heavy or bulky components between the key stages of the logistic value chain. On or off ships or trains. Between the foundry and the factory. From assembly to transportation.

This is the domain of the heavy forklift. No other piece of machinery matches a forklift's combination of raw strength, mobility and versatility. But it's a tough job.

The sheer weight of thousands of tonnes lifted each day wears the mechanics and the materials. Yet the forklift must perform flawlessly every day of the week. Reliably, productively, safely.

Your forklift is a vital part of your logistics or production. In seamless interaction with a skilled operator, the forklift must meet your – and your customer's – demands of product quality and delivery precision, throughout your terminal, factory or assembly line.

Looking at your forklifts in this light, the choice of brand will come naturally. Only the best is good enough. Kalmar is equally renowned for its robust and reliable product quality as for its global service network and supreme customer support.

Heavy forklifts are Kalmar territory since 1949 – making your material handling the strongest link in the logistic value chain.



## 4 good reasons to choose Kalmar

### Productivity

Product quality, reliability and manoeuvring precision allow operators to work with maximum productivity.

### Trust and reliability

Kalmar is a trusted partner, present on all continents and with more than 1,500 service and support staff globally.

### Total cost of ownership

Cost-efficient to own and operate thanks to its adaptability, energy conversion and uptime.

### Ergonomics and safety

Excellent visibility, low noise level, user-friendly adjustments, and more, ensure excellent ergonomics and safety.

*It is no surprise that customer survey results coincide with Kalmar core values. After all, we listen attentively to customers when designing and developing our forklifts. Looking at the big picture, adding up things that truly matter, it will always pay off to choose Kalmar.*



**Designed  
for maximum  
productivity.**



Your Kalmar forklift will always deliver what your operations require. With Power mode activated, operators will have the power necessary to go all-in at every instant and work with maximum productivity. Pushing it hard, while ensuring best-in-class fine-manoeuving.

Our Cummins and Volvo engines are powerful, yet highly fuel efficient. You have a choice of engines which are compliant with EU Stage V, Tier 4 Final and Stage IIIA/Tier 3.

The variable pumps automatically sense the load in every operation and adjust the oil flow accordingly, allowing for faster lifting cycles up to 40% while reducing fuel consumption. This will help to improve your productivity as you can do more lifts per hour.

Many operators testify to the forklift's improved operational capabilities, especially when fine manoeuvring, such as side-shift and fork positioning. Also, the lowering speed has been increased, preparing the machine faster for the next lift.



## Drive modes.

Choose between three different drive modes, each optimised to meet your operational requirements. The forklift can be adapted to every task at hand, shifting many times during the day. The operator easily shifts between modes by using the cabin display screen.



### Power

Brings out maximum performance of your machine, allowing you to increase the number of tonnes moved per hour.



### Normal

Balances power and economy to optimise profitability.



### Economy

If total cost of operations outweighs the need for performance, Economy mode reduces fuel consumption by up to 15%.

# Reducing lifetime costs.

Purchase price is only one of many factors affecting total cost of ownership. In fact, price is a minor cost factor looking over the lifetime of your forklift. What truly matters in the long run is cost control and operational efficiency – and that will show clearly on your bottom line.

Compared to our previous model, the new DCG180-330 uses up to 15% less fuel\* in standard configuration. Add Kalmar's renowned product quality and reliability, increasing efficiency and uptime, and you see the true value of Kalmar.

The forklift's variable pumps and fan are automatically adjusted to the precise need. The pumps and the fan are only operated at full speed when necessary, reducing fuel consumption and noise. Another cost saving feature is Economy mode, an engine setting available to the operator from within the cabin, which further lowers fuel consumption.

Thanks to improved and more durable components, service intervals have been extended. The first service is due after 500 hours, compared to 50 hours for our previous model.

The risk of unplanned standstills has been reduced due to intelligent error detection built into the new control system, which accurately pinpoints potential problems in clear text on a display in the cabin.



# Cost saving features.



## Fuel-efficient engine.

The new Stage V and Tier 4 Final compliant engines reduce fuel consumption by up to **5%\***.



## Economy drive mode.

Using Economy drive mode, fuel consumption is reduced by up to **15%**.



## Energy efficient systems.

Optimised variable hydraulic system and variable cooling fan allows for savings up to **10%**.



## Increased uptime.

Longer service intervals and improved problem detection reduce downtime.

## Total lifetime savings.

Adding all energy saving features, savings up to **30%** are possible.

\* Compared to Kalmar DCF180-330 with Stage IIIB engine.



## Lifetime savings

Purchase price represents only a small part of the total cost of ownership. What matters in the long run is reducing operational and maintenance costs. And that is what Kalmar is all about.

# Prioritising safety and operator ergonomics.

Safety always comes first. Kalmar makes every effort to guarantee that our machines are safe to operate at every worksite around the world. We spend extensive R&D resources to ensure the driver's environment in the cabin is optimal regarding ergonomics, visibility and noise.

First introduced in 2011, our EGO cabin offers the ultimate in ergonomics and safety. Numerous electronically operated adjustments allow the operator to tailor his workplace. The curved windows, which greatly improve visibility, have already become a classic with Kalmar.

The wheel is tiltable sideways, allowing the operator to temporarily change his visual angle, to see around bulky load in front of him. A new 300 mm lower carriage, available with the DCG180–250 versions, further improves visibility in the forward direction.

The operator console is the operator's extended arm, easy to understand, use and adjust. Designed for maximum ergonomics and flexibility, the console puts controls, switches and indicators within easy reach to the operator, ensuring the most efficient forklift operation possible.









# Kalmar Lifetime Services.

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

We offer four different types of service and maintenance contracts. 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 to meet your business needs.

## When the right part matters.

When something needs to be replaced you need a quality part that meets your exact needs – urgently. Kalmar Genuine Parts offers a rapid delivery service for over 50,000 premium-quality genuine parts to anywhere in the world, with installation support if needed.

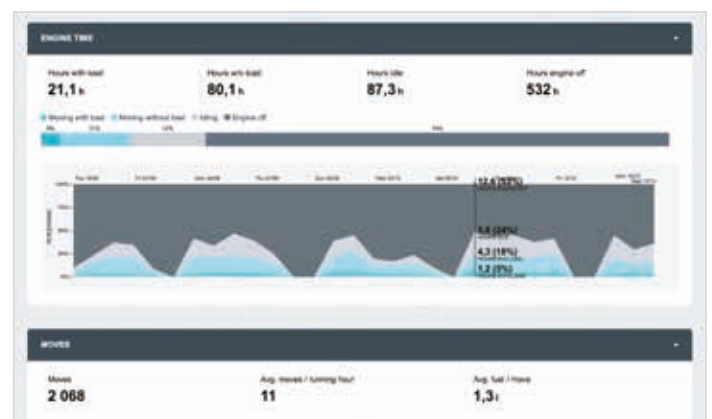
**24 hrs**

Most of our parts can be delivered to you within 24 hours.

## Optimise your fleet with Kalmar Insight.

Kalmar Insight is a performance management tool for cargo and material handling, which gives you a valuable and easy to use overview of your daily operations based on equipment status and performance. Making it quicker for you to take action on relevant information that will help you improve your operations, your equipment's performance and your business.

Kalmar Insight comes fitted in all new Kalmar machines and can be retrofitted to existing Kalmar machines or those built by other manufacturers.



*Kalmar Insight: view each machine's movements as they occur.*



# All the support you need.

## Financing options for you.

You may choose to buy your new forklift 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 your service and maintenance needs. Kalmar can also look at you trading-in your old equipment.



*Kalmar Insight: view each operator's performance in real time.*



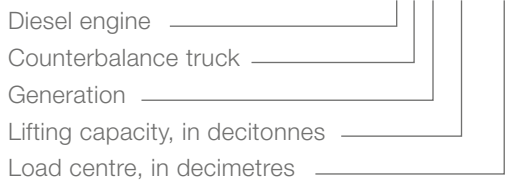
## Kalmar Training Centre.

For your team to get the most out of their new forklift the Kalmar Training Centre offers a range of courses for both your technicians and operators. Operators will be shown how to optimise their day-to-day operational performance and what needs to be checked daily before operations begin.

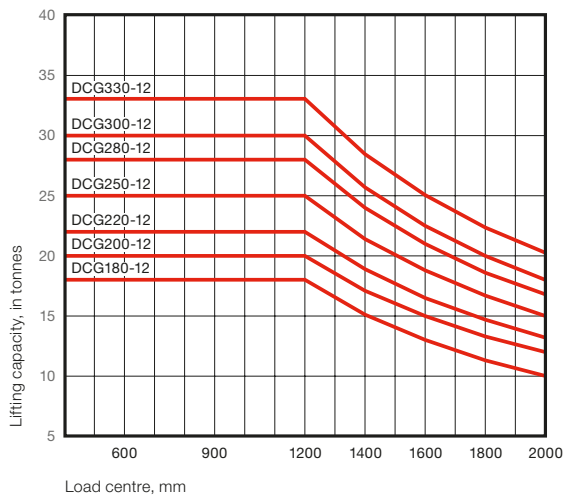
Technicians will be given the knowledge needed to keep your new truck in top condition. Courses are a mix of theory and hands-on experience and can be held at Kalmar or at your site.

# Dimensions.

## Model designation

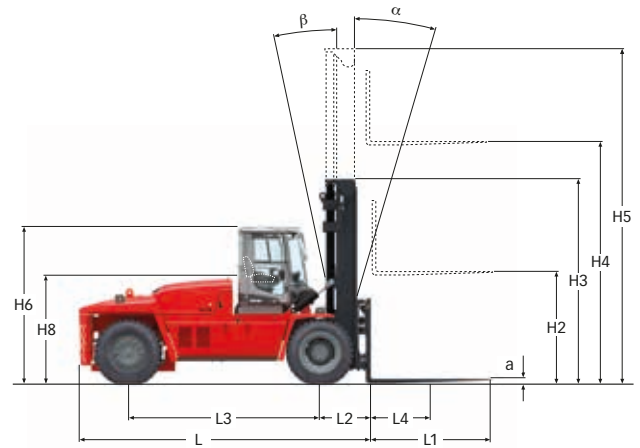


## Lifting capacity in tonnes

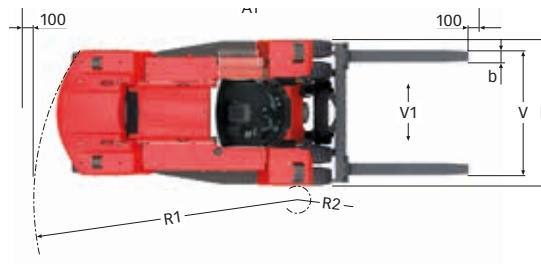
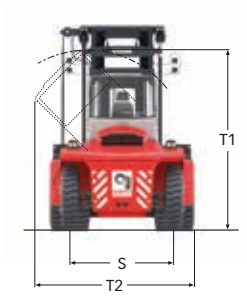


DCG180-250: Full lifting capacity up to 7000 mm lift height with duplex/duplex freelif mast, integrated sideshift/fork positioning carriage and forkshaft system.

DCG280-330: Full lifting capacity up to 7000 mm lift height with duplex/duplex freelif mast, integrated sideshift/fork positioning carriage and forkshaft system.



MAIN DATA	Model designation	
	Power source	
	Rated capacity / rated load	kg
	Load center distance	mm L4
WEIGHTS	Load distance, center of drive axle to fork	mm L2
	Wheelbase	mm L3
	Service weight	kg
	Axle loading, unloaded front	kg
WHEELS	Axle loading, loaded front	kg
	Axle loading, unloaded rear	kg
	Axle loading, loaded rear	kg
	Type, front / rear	
DIMENSIONS	Tyre size, front	inch
	Tyre size, rear	inch
	Number of wheels, front / rear (x = driven wheels)	
	Track width, front / rear	mm S
	Tyre pressure	MPa
	Mast tilt, $\alpha$ = forward / $\beta$ = backward	° $\alpha / \beta$
OTHERS	Height of mast lowered	mm H3
	Lift height	mm H4
	Height of mast extended	mm H5
	Truck height – EGO / OHG cabin roof	mm H6
	Seat height	mm H8
	Height when tilting EGO cab / OHG	mm T1
	Width when tilting EGO cab / OHG	mm T2
	Truck length (to face of forks)	mm L
	Truck width	mm B
	Fork dimensions, width	mm b
	Fork dimensions, thickness	mm a
	Fork dimensions, length of fork arm	mm l
	Fork carriage width	mm b3
	Width over fork arms, minimum / maximum	mm V
	Sideshift $\pm$ @ width over forks	mm V1 / V
	Ground clearance, laden, below mast	mm
Ground clearance, machine	mm	
Min. aisle width for 90° stacking with forks	mm A1	
Turning radius	mm R1	
Internal turning radius	mm R2	
OTHERS	Operating pressure for hydraulics	MPa
	Hydraulic oil tank, capacity	l
	Fuel tank, capacity	l
OTHERS	AdBlue tank, capacity	l



**DCG180-12      DCG200-12      DCG220-12      DCG250-12      DCG280-12      DCG300-12      DCG330-12**

DCG180-12	DCG200-12	DCG220-12	DCG250-12	DCG280-12	DCG300-12	DCG330-12
Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
18000	20000	22000	25000	28000	30000	33000
1200	1200	1200	1200	1200	1200	1200
1070	1070	1070	1070	1125	1125	1125
4000	4000	4000	4250	4750	4750	4750
28500	29800	31200	32900	38300	39500	41500
15000	15000	15000	15500	20500	20500	20500
43200	46300	49500	53800	61700	64900	68800
13500	14800	16200	17400	17800	19000	21000
3300	3500	3700	4100	4100	4300	4800
Pneumatic / Pneumatic						
14.00x24	14.00x24	14.00x24	14.00x24	16.00x25	16.00x25	16.00x25
14.00x24	14.00x24	14.00x24	14.00x24	16.00x25	16.00x25	16.00x25
4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2
2200 / 2200	2200 / 2200	2200 / 2200	2200 / 2200	2440 / 2540	2440 / 2540	2440 / 2540
1,0	1,0	1,0	1,0	1,0	1,0	1,0
5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	5 / 10
4320	4320	4320	4320	4520	4520	4520
5000	5000	5000	5000	5000	5000	5000
6820	6820	6820	6820	7020	7020	7020
3290	3290	3290	3290	3450	3450	3450
2150	2150	2150	2150	2300	2300	2300
3800	3800	3800	3800	3800	3800	3800
3700	3700	3700	3700	3800	3800	3800
6090	6090	6090	6340	6925	6925	6925
3050	3050	3050	3050	3430	3430	3430
250	250	250	250	300	300	300
110	110	110	110	110	110	110
2400	2400	2400	2400	2400	2400	2400
2700 / 800	2700 / 800	2700 / 800	2700 / 800	3150 / 850	3150 / 850	3150 / 850
557 / 1585	557 / 1585	557 / 1585	557 / 1585	625 / 1900	625 / 1900	625 / 1900
-	-	-	-	-	-	-
300	300	300	300	300	300	300
9270	9270	9270	9550	10325	10325	10325
5600	5600	5600	5875	6650	6650	6650
425	425	425	550	950	950	950
16.5	18	20	22	19.5	20.5	22
360	360	360	360	360	360	360
300	300	300	375	450	450	450
35	35	35	35	35	35	35

# Drive train.

		DCG180-250	DCG280-330	
ENGINE	Manufacturer's type designation	Cummins QSB6,7 (Turbo-Intercooler)	Cummins QSB6,7 (Turbo-Intercooler)	
	Fuel, type of engine	Diesel, 4-stroke	Diesel, 4-stroke	
	Rating ISO 3046 / at revs	kW / rpm	164 / 2200	194 / 2200
	Max rpm in machine		2000	2200
	Peak Power / at revs	kW / rpm		
	Peak torque ISO 3046 / at revs	Nm / rpm	949 / 1500	990 / 1500
	Number of cylinders / displacement	cm <sup>3</sup>	6 / 6702	6 / 6702
	Fuel consumption, normal driving	l/h	9-11	13-15
	AdBlue consumption, normal driving	% of diesel	-	-
	Emission standard		Stage III	Stage III
GEARBOX & MISC	Manufacturer's type designation	Dana TE17000	Dana TE17000	
	Clutch, type	Torque converter	Torque converter	
	Gearbox, type	Hydrodynamic Powershift	Hydrodynamic Powershift	
	Numbers of gears, forward / reverse		3 / 3	3 / 3
	Alternator, type / power	W	AC / 1960	AC / 1960
	Starting battery, voltage / capacity	V / Ah	2x12 / 145	2x12 / 145
	Driving axle, manufacturer / type		Kessler D91 / Differential and hub reduction	AxleTech / Differential and hub reduction

# Performance.

## Cummins engines

## DCG180-12 DCG200-12 DCG220-12 DCG250-12 DCG280-12 DCG300-12 DCG330-12

		DCG180-12	DCG200-12	DCG220-12	DCG250-12	DCG280-12	DCG300-12	DCG330-12	
CUMMINS QSB6,7 Stage III	Lifting speed	Unloaded (m/s)	0.39	0.39	0.39	0.39	0.37	0.37	0.37
		At 80% rated load (m/s)	0.37	0.37	0.37	0.37	0.35	0.35	0.35
	Lowering speed	Unloaded (m/s)	0.34	0.34	0.34	0.34	0.32	0.32	0.32
		At rated load (m/s)	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Travelling speed, F / R	Unloaded (km/h)	27 / 27	27 / 27	27 / 27	27 / 27	27 / 27	27 / 27	27 / 27
		At rated load (km/h)	26 / 26	26 / 26	26 / 26	26 / 26	25 / 25	25 / 25	25 / 25
	Gradeability, max.	Unloaded (%)	74	69	65	60	67	64	60
		At rated load (%)	38	35	32	29	33	31	29
	Gradeability, at 2 km/h	Unloaded (%)	51	48	44	41	48	46	43
		At rated load (%)	28	26	24	22	24	23	21
Drawbar pull	Max. (kN)	173	173	173	173	218	218	218	
Noise level, inside	LpAZ*, EGO cabin (dB(A))	72	72	72	72	73	73	73	
	LpAZ*, EGO cabin OHG (dB(A))	-	-	-	-	-	-	-	
Noise level, outside	LWA** (dB(A))	109	109	109	109	110	110	110	
CUMMINS B6,7 Stage V / Tier 4 final	Lifting speed	Unloaded (m/s)	0.39	0.39	0.39	0.39	0.37	0.37	0.37
		At 80% rated load (m/s)	0.37	0.37	0.37	0.37	0.35	0.35	0.35
	Lowering speed	Unloaded (m/s)	0.34	0.34	0.34	0.34	0.32	0.32	0.32
		At rated load (m/s)	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	Travelling speed, F / R	Unloaded (km/h)	27 / 27	27 / 27	27 / 27	27 / 27	27 / 27	27 / 27	27 / 27
		At rated load (km/h)	23 / 23	23 / 23	23 / 23	23 / 23	24 / 24	24 / 24	24 / 24
	Gradeability, max.	Unloaded (%)	91	84	78	72	61	59	55
		At rated load (%)	45	41	38	35	31	30	27
	Gradeability, at 2 km/h	Unloaded (%)	60	56	53	49	43	41	39
		At rated load (%)	33	30	28	26	23	22	20
Drawbar pull	Max. (kN)	180	180	180	180	197	197	197	
Noise level, inside	LpAZ*, EGO cabin (dB(A))	75	75	75	75	75	75	75	
	LpAZ*, EGO cabin OHG (dB(A))	-	-	-	-	-	-	-	
Noise level, outside	LWA** (dB(A))	110	110	110	110	110	110	110	

\* Noise level according to EN12053

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



# Lifting equipment.

We offer a full range of duplex, triplex and free-lift equipment. Based on our long tradition as a supplier of heavy forklifts, our lifting equipment is robust and of the highest quality.

	Lift height H4	Mast height		Free lift H2	Mast height		Free lift H2
		H3 min	H5 max		H3 min	H5 max	
		DCG180-250			DCG280-330		
DUPLEX STD	3000	3320	4820		3520	5020	
	3500	3570	5320	-	3770	5520	
	4000	3820	5820	-	4020	6020	-
	4500	4070	6320	-	4270	6520	-
	5000	4320	6820	-	4520	7020	-
	5500	4570	7320	-	4770	7520	-
	6000	4820	7820	-	5020	8020	-
	7000	5320	8820	-	5520	9020	-

	Lift height H4	Mast height		Free lift H2	Mast height		Free lift H2
		H3 min	H5 max		H3 min	H5 max	
		DCG180-250			DCG280-330		
DUPLEX FFL	3000	3420	4920	1500	3520	5020	1500
	3500	3670	5420	1750	3770	5520	1750
	4000	3920	5920	2000	4020	6020	2000
	4500	4170	6420	2250	4270	6520	2250
	5000	4420	6920	2500	4520	7020	2500
	5500	4670	7420	2750	4770	7520	2750
	6000	4920	7920	3000	5020	8020	3000
	7000	5420	8920	3500	5520	9020	3500

	Lift height H4	Mast height		Free lift H2	Mast height		Free lift H2
		H3 min	H5 max		H3 min	H5 max	
		DCG180-250			DCG280-330		
TRI.	4550	3500	6350	1700	-	-	-
	4625	-	-	-	3680*	6630*	1625
	5150	3700	6950	1900	-	-	-
	6000	-	-	-	4130*	8010*	2100
	6500	4150	8300	2350	-	-	-
	6950	4300	8750	2500	-	-	-

\* Might be slightly reduced if smallest available tyres are chosen.



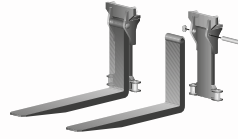




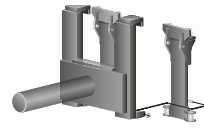
Carriage sideshift / fork positioning



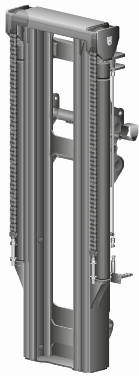
Carriage with kissing forks for steel handling



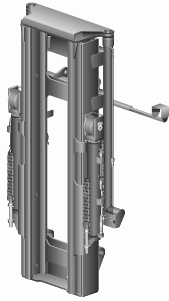
Fork shaft system (Hook on type or roller type)



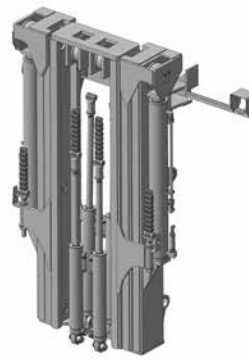
Coil ram



Duplex standard



Duplex free lift



Triplex full free lift





  
**KALMAR**

# Standard equipment.

## Chassis/Body

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

## Cabin

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

## Drivetrain

- Driveaxle DCG180-250: Kessler  
DCG280-330: Axletech

## Hydraulics

- Electrical servo
- Level sight glass on hydraulic oil tank
- Variable pumps
- High pressure filter
- Automatic raised engine rpm when load handling function is used
- Tilt angles - standard 5°/10°B

## Electric system

- Electrical system 24 V
- Rear lights and brake lights, LED
- Working light front mudguards 2 pieces, LED
- Working light mast 2 pieces, LED
- Indicator lamps including hazard lights, LED
- Main power switch

## Wheels

- Continental  
DCG180-250 14.00x24  
DCG280-330 16.00x25

## Fleet management

- Equipped with telemetric hardware for Kalmar Insight

## Colour

- Cabin: 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

- Operator manual
- Maintenance manual
- Parts catalogue
- Load diagram in cabin
- Warning decals
- Information decals
- Diagram, fuses
- Noise plate (legal requirement in EU/EEC)



# KALMAR

Making your every move count

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