



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

40,000 - 72,000 lbs 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 tons 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 maneuvering 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-maneuvering.

Our Cummins engines are powerful, yet highly fuel efficient. You have a choice of engines which are compliant with EPA Tier 4 Final.

The variable hydraulic 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 maneuvering, such as side-shift and fork positioning. Also, the lowering speed has been increased, preparing the machine faster for the next lift.



## Optional drive modes.

Choose between three different drive modes, each optimized 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 tons moved per hour.



### Normal

Balances power and economy to optimize 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 hydraulic 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 the optional 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 an optional Economy drive mode, fuel consumption is reduced by up to **15%**.



### Energy efficient systems.

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



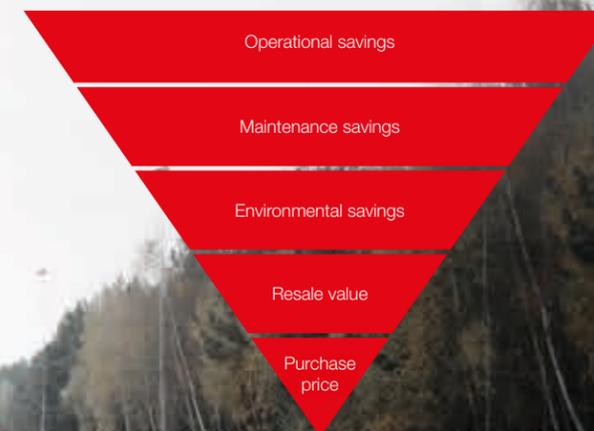
### Increased uptime.

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 III B 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.



# Prioritizing safety and operator ergonomics.

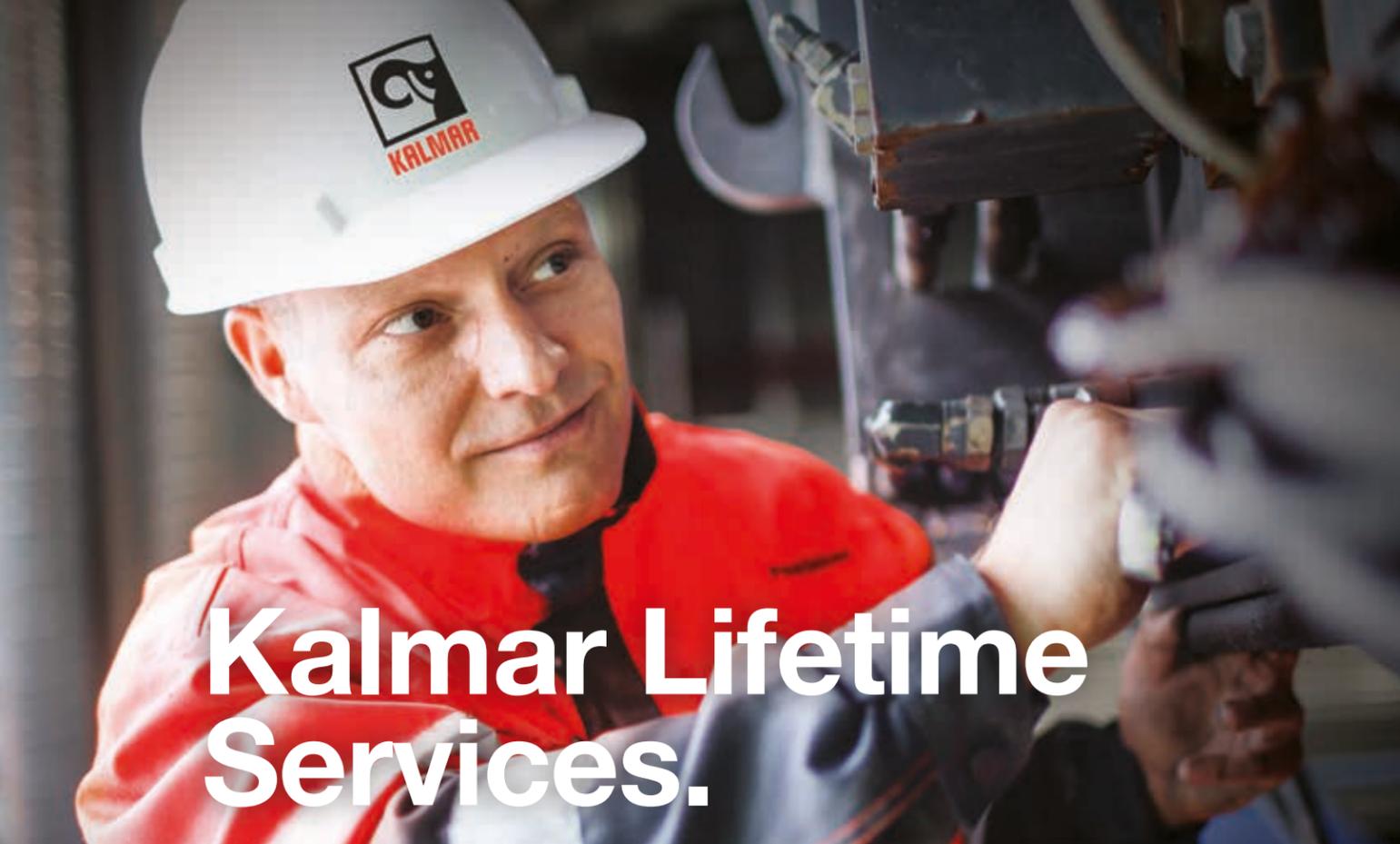


Safety always comes first. Kalmar makes every effort to guarantee that our machines are safe to operate at every worksite around the world. We spend extensive R&D resources to ensure the driver's environment in the cabin is optimal regarding ergonomics, visibility and noise.

Our spacious 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 tilttable sideways, allowing the operator to temporarily change his visual angle, to see around bulky load in front of him. A new 11.8" 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.



# All the support you need.

## Optimize 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.*



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

\*Installation costs and/or an annual subscription fee may apply.

## 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.

## 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.



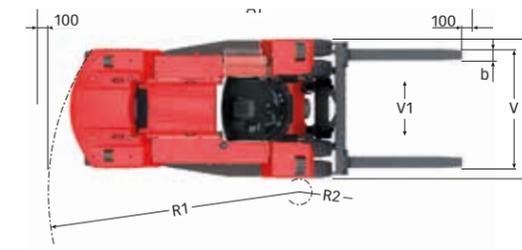
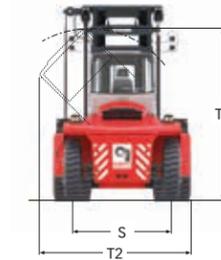
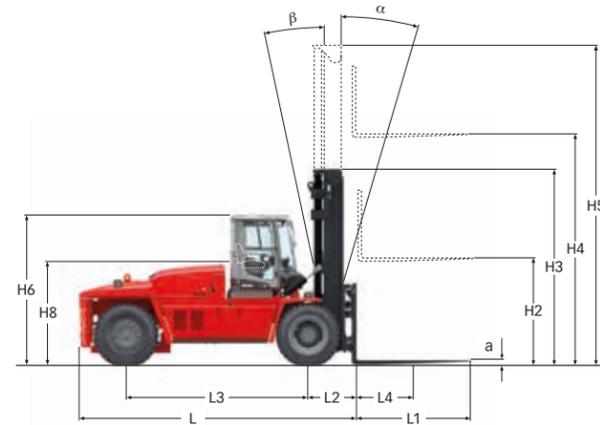
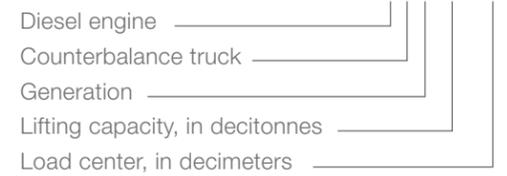
## Kalmar Training Center.

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

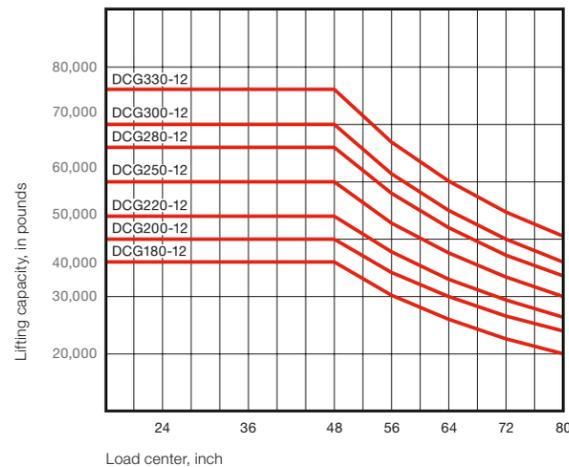
Technicians will be given the knowledge needed to keep your new truck in top condition. Courses are a mix of theory and hands-on experience that can be held at your site.

# Dimensions.

## Model designation



## Lifting capacity in pounds



DCG180-250: Full lifting capacity up to 276 in lift height with duplex/duplex freelif mast, integrated sideshift/fork positioning carriage and forkshaft system.  
 DCG280-330: Full lifting capacity up to 276 in lift height with duplex/duplex freelif mast, integrated sideshift/fork positioning carriage and forkshaft system.

	DCG180-12	DCG200-12	DCG220-12	DCG250-12	DCG280-12	DCG300-12	DCG330-12
<b>MAIN DATA</b>							
Model designation	DCG180-12	DCG200-12	DCG220-12	DCG250-12	DCG280-12	DCG300-12	DCG330-12
Power source	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Rated capacity / rated load	40000	44000	48000	55000	60500	66000	72000
Load center distance	48	48	48	48	48	48	48
Load distance, center of drive axle to fork	42	42	42	42	45	45	45
Wheelbase	157	157	157	167	187	187	187
<b>WEIGHTS</b>							
Service weight	62830	65700	68785	72530	84435	87085	91490
Axle loading, unloaded front	33070	33070	33070	34170	45195	45195	45195
Axle loading, loaded front	95555	102075	109130	118610	136025	143605	152910
Axle loading, unloaded rear	29760	32630	35715	38360	39240	41890	46295
Axle loading, loaded rear	7275	7625	7655	8920	8910	9480	10580
<b>WHEELS</b>							
Type, front / rear				Pneumatic / Pneumatic			
Tire size, front	14.00x24	14.00x24	14.00x24	14.00x24	16.00x25	16.00x25	16.00x25
Tire size, rear	14.00x24	14.00x24	14.00x24	14.00x24	16.00x25	16.00x25	16.00x25
Number of wheels, front / rear (x = driven wheels)	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2
Track width, front / rear	87 / 87	87 / 87	87 / 87	87 / 87	94 / 100	94 / 100	94 / 100
Tire pressure	145	145	145	145	145	145	145
<b>DIMENSIONS</b>							
Mast tilt, $\alpha$ = forward / $\beta$ = backward	5/10	5/10	5/10	5/10	5/10	5/10	5/10
Height of mast lowered	170	170	170	170	178	178	178
Lift height	197	197	197	197	197	197	197
Height of mast extended	269	269	269	269	276	276	276
Truck height - EGO / OHG cabin roof	130	130	130	130	136	136	136
Seat height	85	85	85	85	91	91	91
Height when tilting EGO cab / OHG	150	150	150	150	150	150	150
Width when tilting EGO cab / OHG	146	146	146	146	150	150	150
Truck length (to face of forks)	240	240	240	250	273	273	273
Truck width	120	120	120	120	135	135	135
Fork dimensions, width	9.8	9.8	9.8	9.8	11.8	11.8	11.8
Fork dimensions, thickness	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Fork dimensions, length of fork arm	94.5	94.5	94.5	94.5	94.5	94.5	94.5
Fork carriage width	-	-	-	-	-	-	-
Width over fork arms, minimum / maximum	106 / 31.5	106 / 31.5	106 / 31.5	106 / 31.5	124 / 33.5	124 / 33.5	124 / 33.5
Sideshift $\pm$ @ width over forks	22 / 62.4	22 / 62.4	22 / 62.4	22 / 62.4	24.6 / 74.8	24.6 / 74.8	24.6 / 74.8
Ground clearance, laden, below mast	-	-	-	-	-	-	-
Ground clearance, machine	12	12	12	12	12	12	12
Min. aisle width for 90° stacking with forks	365	365	365	376	406	406	406
Turning radius	220	220	220	231	262	262	262
Internal turning radius	17	17	17	22	37	37	37
<b>OTHERS</b>							
Operating pressure for hydraulics	2393	2611	2901	3191	2828	2973	3191
Hydraulic oil tank, capacity	95	95	95	95	95	95	95
Fuel tank, capacity	79	79	79	99	119	119	119
Diesel exhaust fluid (DEF) tank, capacity	9	9	9	9	9	9	9

# Drivetrain.

		DCG180-250	DCG280-330	
ENGINE	Manufacturer's type designation	Cummins B6,7 (Turbo-Intercooler)	Cummins B6,7 (Turbo-Intercooler)	
	Fuel, type of engine	Diesel, 4-stroke	Diesel, 4-stroke	
	Rating ISO 3046 / at revs	hp / rpm	225 / 2200	225 / 2200
	Max rpm in machine		2000	2150
	Peak Power / at revs	hp / rpm	252 / 1900	252 / 1900
	Peak torque ISO 3046 / at revs	lbf-ft / rpm	700 / 1500	700 / 1500
	Number of cylinders / displacement	in <sup>3</sup>	6 / 409	6 / 409
	Fuel consumption, normal driving	gal/hr	2.4 - 2.9	3.4 - 4.0
	DEF consumption, normal driving	% of diesel	4-6	4-6
	Emission standard		Stage V / Tier 4 final	Stage V / Tier 4 final
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	
CUMMINS B6,7 Stage V / Tier 4 final	Lifting speed	Unloaded (ft/s)	1.28	1.28	1.28	1.28	1.21	1.21	1.21
		At 80% rated load (ft/s)	1.21	1.21	1.21	1.21	1.15	1.15	1.15
	Lowering speed	Unloaded (ft/s)	1.12	1.12	1.12	1.12	1.05	1.05	1.05
		At rated load (ft/s)	1.31	1.31	1.31	1.31	1.31	1.31	1.31
	Traveling speed, F / R	Unloaded (mph)	17 / 17	17 / 17	17 / 17	17 / 17	17 / 17	17 / 17	17 / 17
		At rated load (mph)	14 / 14	14 / 14	14 / 14	14 / 14	15 / 15	15 / 15	15 / 15
	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. (lbf)	40464	40464	40464	40464	44286	44286	44286
	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	118	131	190	-	139	198	-
	138	141	209	-	148	217	-
	157	150	229	-	158	237	-
	177	160	249	-	168	257	-
	197	170	269	-	178	276	-
	217	180	288	-	188	296	-
	236	190	308	-	198	316	-
	256	200	328	-	207	335	-
276	209	347	-	217	355	-	

	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	118	135	194	59	139	198	59
	138	144	213	69	148	217	69
	157	154	233	79	158	237	79
	177	164	253	89	168	257	89
	197	174	272	98	178	276	98
	217	184	292	108	188	296	108
	236	194	312	118	198	316	118
	256	204	331	128	207	335	128
276	213	351	138	217	355	138	

	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.	179	138	250	67	-	-	-
	182	-	-	-	145	261	64
	203	146	274	75	-	-	-
	236	-	-	-	163	315	83
	256	163	327	93	-	-	-
	274	169	344	98	-	-	-

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



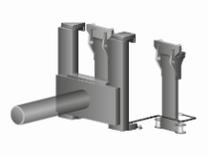
Carriage sideshift / fork positioning



Carriage with kissing forks for steel handling



Fork shaft system (Hook on type or roller type)



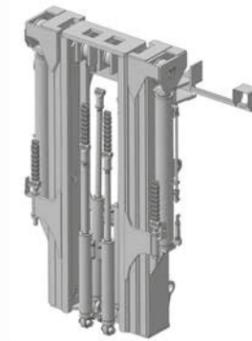
Coil ram



Duplex standard



Duplex free lift



Triplex full free lift





## Standard equipment.

### Chassis/Body

- Tow pin
- Steps with anti slip protection
- Rear view mirror left and right side mounted on front fenders
- Tilttable cabin (manual tilt)

### Cabin

- EGO Cabin
- Clear and tempered panes of safety glass, thickness 6 mm
- Standard full suspension seat including 2-point orange seatbelt
- Clear windows including sliding windows in left and right doors
- Complete doors with locks left and right side
- Complete maneuver system features electric adjustable right-hand console including standard display (electric adjustable)
- Multi function left side lever includes horn, direction, and 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 steering wheel with features, electrically adjustable height and manual lateral/longitudinal adjustment
- 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 std Key system
- Cup holder
- Coat hook
- Color display:
  - Fuel level indicator
  - Engine and transmission oil temperature
  - Oil pressure engine
  - Battery voltage
  - Clock and date
  - Hour meter
  - Service time indicator
  - Speed
  - Engine speed (RPM)
  - Various information via pop-up
  - DEF indicator

### Steering system

- Kalmar steering axle, including double acting steering cylinder

### Drivetrain

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

### 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 fenders 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

### Color

- 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 catalog
- Load diagram in cab
- Warning decals
- Information decals
- Fuse diagram



# KALMAR

Making your every move count

Published by Kalmar, part of Cargotec. Copyright © Cargotec 2018. All rights reserved. No part of this publication may be copied or reproduced without permission of the copyright owner. The content of this document is provided "as is", without warranties of any kind with regards to its accuracy or reliability and excluding all implied warranties. We reserve the rights to make changes to any of the items described in this document without prior notice. The content of each service and availability of particular services may vary.

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