

Big challenges made easy.

Kalmar Heavy Forklifts.
DCG380-540



KALMAR

Make light work of heavy loads.

Our new range of heavy forklifts can handle loads of 38 to 54 tonnes with ease.

They have been built to deliver on power and performance - yet designed to feel as agile and smooth to operate as a much smaller machine. No matter what you are lifting in your foundry, factory, terminal or assembly line, the new Kalmar Heavy Forklift will do it efficiently, effectively and safely.

Easier to specify the solution you need.

We understand that your heavy lifting needs are unique to your business, which is why we offer a range of three different wheelbases with two width options so you can choose the combination that works best for your business. There are also a range of masts and attachments to choose from, a simplex mast when you need to operate with restricted head height and duplex and triplex masts when you need to lift your load higher.

Easier to maintain.

With a tiltable cabin, engine hatches instead of a hood, and easily accessible service points, your new heavy forklift will be quicker and easier to maintain. Saving you time and money.

There is also a range of Kalmar Care Service and Maintenance packages that can be tailored to your specific needs to help keep your forklift operating at its best.

Improved lifting.

With a wider carriage with full side shift and fork positioning, you will be able to handle a broader variety of loads a lot easier.





Steel Industry.

Our heavy forklift is able to lift heavy metal coils easily when fitted with a coil ram, allowing you to move coils quicker and more efficiently around the foundry. It is also able to handle a range of heavy steel slabs and pipes.



Wind Industry.

Our new heavy forklifts, when working in tandem, will be able to lift, shift and load wind tower sections that weight in up to 100 tonnes. To lift sections in excess of 100 tonnes you may want to consider our Super Heavy Forklift, when working in tandem it can lift loads in excess of 100 tonnes.



Heavy Industry.

Flat, round or bulky – our new heavy forklift, with a wide range of lifting attachments, will be able to handle all of your heavy lifting needs up to 54 tons.



Shorter wheelbase models are available for operating in limited space.

A common platform to make things easier.

Built on our proven G-Generation platform you can expect your new heavy forklift to be easier to operate, handle heavy loads and with common diagnostics you can identify and solve issues quickly.

Easier to operate.

Our G-Generation of forklifts all benefit from the same operating environment and controls, making it easier for your drivers to switch between Kalmar machines.

Easier to lift heavy loads.

All of our heavy forklifts come fitted with a variable hydraulic lifting system, which applies exactly the right amount of power to handle your load based on its weight.

Easier to solve issues.

With common control and electrical systems you will be able to identify and trouble shoot any issues easily. Getting the issues solved quicker, means you will achieve a much higher utilisation rate with your new machine.

Improved lifting and lowering rates.

The speed at which you can move materials around your yard impacts your entire business, which is why we have improved the lifting and lowering rates of our heavy forklift over the previous generation.

		DCG380-450	DCG480-540
Lifting Speed	Unloaded (m/s)	0.34	0.28
	At 80% rated load (m/s)	0.32	0.26
Lowering Speed	Unloaded (m/s)	0.42	0.35
	At rated load (m/s)	0.50	0.40
Travelling Speed F/R	Unloaded (km/h)	27/20	27/20
	At 80% rated load (km/h)	27/18	25/18
Drawbar pull	Max. (kN)	350	310

Enhanced cooling system.

Our heavy forklifts now come fitted with a reversible cooling fan that can help keep your radiator clean and operating effectively in dirty or dusty environments.



A focus on safety.

To keep your drivers and colleagues safe we have introduced a number of new safety features.

Your drivers will now be safer entering or exiting their forklift, as there are more handrails and bars, plus all the climbing surfaces are non-slip. There are also steps on the right-hand side that can be used to enter or exit the cabin in emergencies. Our EGO cabin provides improved visibility both forwards and backwards and there are a number of additional safety options to make your machine even safer.



Easy to operate.

Our new heavy forklift comes fitted with our ergonomically designed EGO cabin, which provides a superior operating experience for your drivers. With its smart functions and a more intuitive workspace, your drivers will be able to operate at their most productive every day, with ease.

Easier to see.

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.

Easier 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.

Easy on your drivers.

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.

Easily smarter by far.

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.



Easy on your pocket.

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 heavy forklift comes with numerous costs saving features.

Up to 5% reduction in fuel costs from our range of highly efficient engines, which are EU Stage 4 or Stage 5 emissions standards compliant.

Save up to **5%** in fuel costs

Up to 10% reduction in fuel costs from our variable hydraulic systems and cooling fans which adjust their effort to the load being moved.

Save up to **10%** in fuel costs


Up to 25% reduction in fuel with economy drive mode when using ECO-Drive.

Save up to **25%** in fuel costs

Save up to 10% in fuel costs.



Up to 10% reduction in fuel costs with a HTE lock-up gearbox as standard, which uses the power your engine produces more effectively.



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.



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.



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.



Reversible Engine Fan. If your forklift needs to operate in a dirty and dusty environment then a reversible fan can help keep your driveline cleaner and operating optimally.



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.



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.



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.



Improve your fleet performance.

Optimise your forklift 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.



Access on mobile, tablet or traditional screen.



View each machine's movements as they occur.



Plan your maintenance and spare parts needs.



View each operator's performance in real time.

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

All the support you need.

Our job doesn't stop once we deliver your new forklift truck. We also offer a range of support services that help to 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.





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
- Additional 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 Centre.

Our training centre 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.

Performance.

			DCG380-12S	DCG380-12	DCG420-12S
PERFORMANCE, VOLVO TAD1181 VE	Lifting speed	Unloaded (m/s)	0.34	0.34	0.34
		At 80 % of rated load (m/s)	0.32	0.32	0.32
	Lowering speed	Unloaded (m/s)	0.42	0.42	0.42
		At rated load (m/s)	0.50	0.50	0.50
	Travelling speed,	Unloaded (km/h)	27 / 20	27 / 20	27 / 20
		At rated load (km/h)	27 / 18	27 / 18	20 / 18
	Gradeability, max.	Unloaded (%)	96	104	88
		At rated load (%)	43	44	40
	Gradeability, at 2 km/h	Unloaded (%)	58	61	54
		At rated load (%)	30	31	28
	Drawbar pull	Max. (kN)	350	350	350
	Noise level, inside	LpAZ*, Essential cabin (dB(A))	75	75	75
		LpAZ*, Essential cabin OHG (dB(A))	–	–	–
	Noise level, outside	LWA** (dB(A))	112	112	112

Drivetrains.

			DCG380-540	DCG380-540	DCG380-540
ENGINE	Manufacturer's type designation		Volvo TAD 1181VE (Turbo-Intercooler)	Volvo TAD 1171VE (Turbo-Intercooler)	Volvo TAD 1151VE (Turbo-Intercooler)
	Fuel, type of engine		Diesel, 4-stroke		
	Rating ISO 3046 / at revs	kW / rpm	265 / 1448-2100		
	Peak torque ISO 3046 / at revs	Nm / rpm	1785 / 1400	1785 / 1260	1785 / 1260
	Number of cylinders / displacement	cm³	6 / 10800		
	Fuel consumption, normal driving	l/h	17-20		
	AdBlue consumption, normal driving	% of diesel	4-6	3-5	N/A
	Emission standard		Stage V	EU Stage IV/ US EPA Tier 4f	EU Stage IIIA/ US EPA Tier 3
GEARBOX & MISC	Manufacturer's type designation		Dana TE30500		
	Clutch, type		Torque converter with lock-up		
	Gearbox, type		Hydrodynamic Powershift		
	Numbers of gears, forward / reverse		5 / 3		
	Alternator, type / power	W	AC / 3080		
	Starting battery, voltage / capacity	V / Ah	2×12 / 145		
	Driving axle, manufacturer / type		Kessler D102 / Differential and hub reduction		

DCG420-12	DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12
0.34	0.34	0.34	0.28	0.28	0.28	0.28
0.32	0.32	0.32	0.26	0.26	0.26	0.26
0.42	0.42	0.42	0.35	0.35	0.35	0.35
0.50	0.50	0.50	0.4	0.4	0.4	0.40
27 / 20	27 / 20	27 / 20	27 / 20	27 / 20	27 / 20	27 / 20
22 / 18	15 / 15	17 / 17	25 / 18	25 / 18	25 / 18	25 / 18
95	83	89	59	62	59	58
41	37	38	30	30	29	28
57	52	55	40	41	40	39
28	26	27	21	21	20	20
350	350	350	312	312	312	312
75	75	75	75	75	75	75
–	–	–	–	–	–	–
112	112	112	112	112	112	112

Lifting equipment.

	Lift height	Mast height		Free lift		Mast height		Free lift
	H4	H3 min	H5 max	H2		H3 min	H5 max	H2
	DCG380-450					DCG480-540		
DUPLIX STANDARD	3500			–				
	4000	4550	6550	–		5100	7100	–
	4500	4800	7050	–		5350	7600	–
	5000	5050	7550	–		5600	8100	–
	5500	5300	8050	–		5850	8600	–
	6000	5550	8550	–		6100	9100	–
	6500	5800	9050	–		6350	9600	–
	7000	6050	9550	–		6600	10100	–
DUPLIX FFL	3500	Available on request						
	4000							
	4500							
	5000							
	5500							
	6000							
TRI.	Available on request							
	;							
SIMP.	Available on request							

Dimensions.

				DCG380-12S	DCG380-12	DCG420-12S
MAIN DATA	Model designation			DCG380-12S	DCG380-12	DCG420-12S
	Power source			Diesel	Diesel	Diesel
	Rated capacity / rated load	kg		38000	38000	42000
	Load center distance	mm	L4		1200	
	Load distance, center of drive axle to fork	mm	L2		1305	
WEIGHTS	Wheelbase	mm	L3	5000	5500	5000
	Service weight	kg		51400	49400	53900
	Axle loading, unloaded front	kg		26400	26700	26400
	Axle loading, loaded front	kg		83400	82000	89400
WHEELS	Axle loading, unloaded rear	kg		25000	22700	27500
	Axle loading, loaded rear	kg		6000	5400	6500
	Type, front / rear			Pneumatic / Pneumatic		
	Tyre size, front	inch		18.00×25		
DIMENSIONS	Tyre size, rear	inch		18.00×25		
	Number of wheels, front / rear (x = driven wheels)			4* – 2		
	Track width, front / rear	mm	S	3030 / 2625		
	Tyre pressure	MPa		1.0		
OTHERS	Mast tilt, ∂ = forward / β = backward	°	∂ / β	5 / 10		
	Height of mast lowered	mm	H3	5050		
	Lift height	mm	H4	5000		
	Height of mast extended	mm	H5	7550		
	Truck height – EGO / OHG cabin roof	mm	H6	3550		
	Seat height	mm	H8	2500		
	Height when tilting EGO cab / OHG	mm	T1	4000		
	Width when tilting EGO cab / OHG	mm	T2	4200		
	Truck length (to face of forks)	mm	L	7300	7800	7300
	Truck width	mm	B	4150		
	Fork dimensions, width	mm	b	300		
	Fork dimensions, thickness	mm	a	135		
	Fork dimensions, length of fork arm	mm	l	2400		
	Fork carriage width	mm	b3	3700		
	Width over fork arms, minimum / maximum	mm	V	3350 / 950		
	Sideshift ± @ width over forks	mm	V1 / V	700 / 1950		
	Ground clearance, laden, below mast	mm		270		
	Ground clearance, machine	mm		240		
	Min. aisle width for 90° stacking with forks	mm	A1	10805	11305	10805
	Turning radius	mm	R1	6900	7400	6900
	Internal turning radius	mm	R2	1000	1100	1000
OTHERS	Operating pressure for hydraulics	MPa		19.5	19.5	21
	Hydraulic oil tank, capacity	l		600		
	Fuel tank, capacity	l		450		
	AdBlue tank, capacity	l		35		

1. 4 + 2 pneumatic / diagonal tyres
2. Depending on ECO Drive Mode setting

DCG420-12	DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12
DCG420-12	DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12
Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
42000	45000	45000	48000	48000	52000	54000
			1200			
1305	1305	1305	1430	1430	1430	1430
5500	5000	5500	5500	6000	6000	6000
51700	55800	53500	61900	59700	62000	63100
26700	26400	26700	32000	32300	32300	32300
87800	93900	92200	103000	101300	107100	110000
25000	29400	26800	29900	27400	29700	30800
5900	6900	6300	6900	6400	6900	7100
18.00×25	18.00×25	18.00×25	18.00×33	18.00×33	18.00×33	18.00×33
18.00×25	18.00×25	18.00×25	18.00×33	18.00×33	18.00×33	18.00×33
4* – 2	4* – 2	4* – 2	4* – 2			
3030 / 2625	3030 / 2625	3030 / 2625	3030 / 2815	3030 / 2815	3030 / 2815	3030 / 2815
1.0						
5 / 10						
5050	5050	5050	5600	5600	5600	5600
5000						
7550	7550	7550	8100	8100	8100	8100
3550	3550	3550	3650	3650	3650	3650
2500	2500	2500	2600	2600	2600	2600
4000	4000	4000	4100	4100	4100	4100
4200						
7800	7300	7800	8025	8525	8525	8525
4150						
300						
135	135	135	145	145	145	145
2400						
3700						
3350 / 950	3350 / 950	3350 / 950	3310 / 990	3310 / 990	3310 / 990	3310 / 990
700 / 1950	700 / 1950	700 / 1950	700 / 1910	700 / 1910	700 / 1910	700 / 1910
270						
240	240	240	300	300	300	300
11305	10805	11305	12180	12680	12680	12680
7400	6900	7400	8150	8650	8650	8650
1100	1000	1100	1100	1200	1200	1200
21	22	22	22	19.5	21	21.5
600						
450						
35						



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www.kalmarglobal.com



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. All engine alternatives are compliant with emission standard Stage IV/Tier 4 Final.

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 IV/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.

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When the right part matters.

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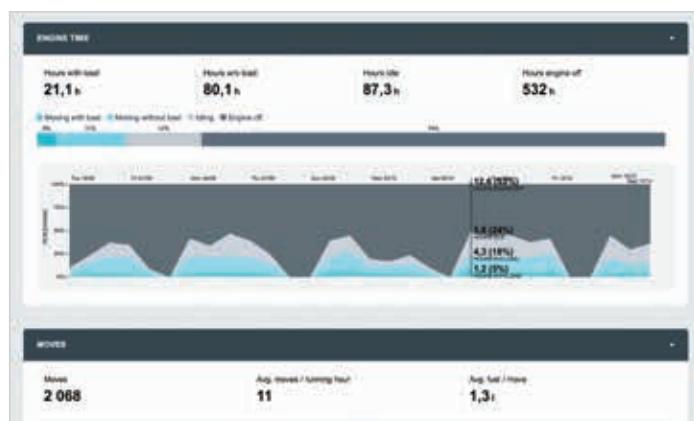
24 hrs

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

Optimise your fleet with Kalmar Insight.

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



All the support you need.

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Kalmar Training Academy.

For your team to get the most out of their new forklift the Kalmar Training Academy 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.

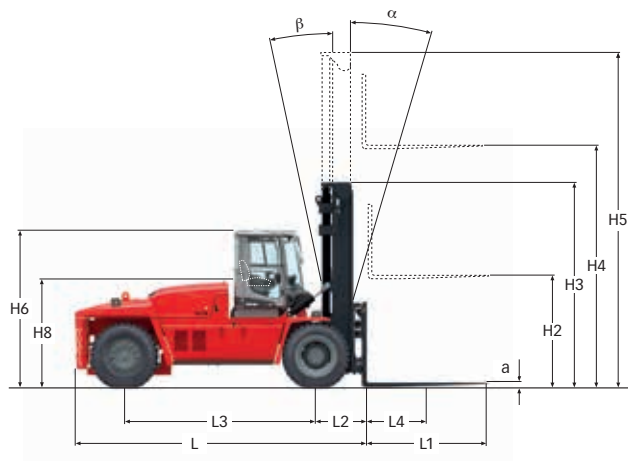


Kalmar Insight: view each operator's performance in real time.

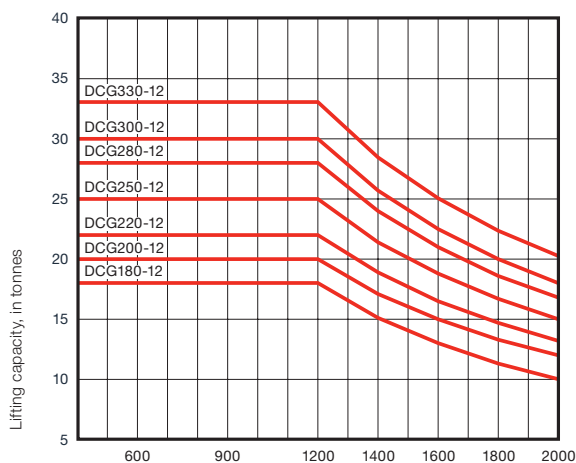
Dimensions.

Model designation

	DCG180-12LB
Diesel engine	
Counterbalance truck	
Generation	
Lifting capacity, in decitonnes	
Load centre, in decimetres	
Low built tilt cylinders	



Lifting capacity in tonnes

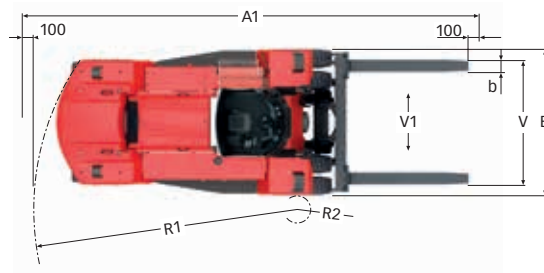
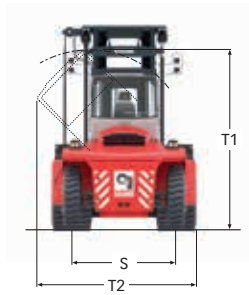


Load centre, mm

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
OTHERS	Tyre pressure	MPa	
	Mast tilt, α = forward / β = backward	°	α / β
	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
	Operating pressure for hydraulics	MPa	
	Hydraulic oil tank, capacity	l	
	Fuel tank, capacity	l	
	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						
14.00×24	14.00×24	14.00×24	14.00×24	16.00×25	16.00×25	16.00×25
14.00×24	14.00×24	14.00×24	14.00×24	16.00×25	16.00×25	16.00×25
4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2	4* - 2
2200 / 2140	2200 / 2140	2200 / 2140	2200 / 2140	2540 / 2440	2540 / 2440	2540 / 2440
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
3270	3270	3300	3270	3415	3415	3415
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	575 / 2000	575 / 2000	575 / 2000
-	-	-	-	-	-	-
300	300	300	300	300	300	300
9270	9270	9270	9550	10325	10325	10325
5600	5600	5600	5875	6600	6600	6600
425	425	425	550	950	950	950
16.5	18	20	22	19.5	20.5	22
330	330	330	330	330	330	330
300	300	300	375	450	450	450
35	35	35	35	35	35	35

Drive train and performance.

ENGINE	DCG180-250		DCG280-330						
	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	168 / 2200					
	Peak power at revs		kW / rpm	188 / 1900					
	Power at machine max revs		kW / rpm	186 / 2000					
	Peak torque ISO 3046 / at revs		Nm / rpm	1186 / 1300					
	Number of cylinders / displacement		cm³	6 / 6686					
	Fuel consumption, normal driving		l/h	9-11					
	AdBlue consumption, normal driving		% of diesel	4-6					
Emission standard		EU Stage V / USA EPA Tier 4(f)							
GEARBOX & MISC	Manufacturer's type designation		Dana TE17000						
	Clutch, type		Torque converter						
	Gearbox, type		Hydrodynamic Powershift						
	Numbers of gears, forward / reverse		3 / 3						
	Alternator, type / power		W						
	Starting battery, voltage / capacity		V / Ah						
	Driving axle, manufacturer / type		Kessler D91 / Differential and hub reduction						
			AxleTech PRC3806 / Differential and hub reduction						
PERFORMANCE, CUMMINS QSB6,7			DCG180-12	DCG200-12	DCG220-12	DCG250-12	DCG280-12	DCG300-12	DCG330-12
	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	223 / 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)	189	189	189	189	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



ENGINE	DCG180-250		DCG280-330						
	Manufacturer's type designation		Volvo TAD 871VE (Turbo-Intercooler)	Volvo TAD 871VE (Turbo-Intercooler)					
	Fuel, type of engine		Diesel, 4-stroke	Diesel, 4-stroke					
	Rating ISO 3046 / at revs		kW / rpm	185 / 2200					
	Peak power at revs		kW / rpm	-					
	Power at machine max revs		kW / rpm	-					
	Peak torque ISO 3046 / at revs		Nm / rpm	1160 / 1200					
	Number of cylinders / displacement		cm³	6 / 7700					
	Fuel consumption, normal driving		l/h	8-11					
	AdBlue consumption, normal driving		% of diesel	3-5					
Emission standard		Stage IV / Tier 4 final	Stage IV / Tier 4 final						
GEARBOX & MISC	Manufacturer's type designation		Dana TE17000						
	Clutch, type		Torque converter						
	Gearbox, type		Hydrodynamic Powershift						
	Numbers of gears, forward / reverse		3 / 3						
	Alternator, type / power		W						
	Starting battery, voltage / capacity		V / Ah						
	Driving axle, manufacturer / type		Kessler D91 / Differential and hub reduction						
			AxleTech PRC3806 / Differential and hub reduction						
PERFORMANCE, VOLVO TAD 871VE			DCG180-12	DCG200-12	DCG220-12	DCG250-12	DCG280-12	DCG300-12	DCG330-12
	Lifting speed	Unloaded (m/s)	0.33	0.33	0.33	0.33	0.35	0.35	0.35
		At rated load (m/s)	0.32	0.32	0.32	0.32	0.33	0.33	0.33
	Lowering speed	Unloaded (m/s)	0.38	0.38	0.38	0.38	0.38	0.38	0.38
		At rated load (m/s)	0.38	0.38	0.38	0.38	0.38	0.38	0.38
	Travelling speed, F / R	Unloaded (km/h)	24 / 24	24 / 24	24 / 24	24 / 24	24 / 24	24 / 24	24 / 24
		At rated load (km/h)	23 / 23	23 / 23	23 / 23	23 / 23	23 / 23	23 / 23	23 / 23
	Gradeability, max.	Unloaded (%)	74	69	65	60	65	62	58
		At rated load (%)	38	35	32	29	32	30	28
	Gradeability, at 2 km/h	Unloaded (%)	51	48	44	41	43	41	39
		At rated load (%)	28	26	24	22	24	22	21
	Drawbar pull	Max. (kN)	173	173	173	173	213	213	213
	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

* Noise level according to EN12053

** Noise level according to 2000/14/EC



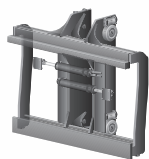
Lifting equipment.

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	3500			–			
	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	–
	6500	5070	8320	–	5270	8520	–
	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	3500						
	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				5020	8020	3000
	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	–	–	–
	5900	–	–	–	4220*	8150*	2080
	6500	4150	8300	2350	–	–	–

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

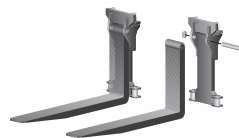




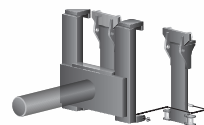
Carriage sideshift / fork positioning



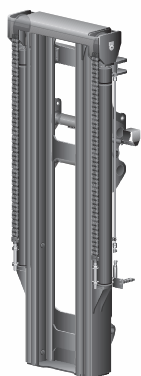
Carriage with kissing forks for steel handling



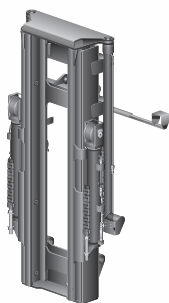
Fork shaft system
(Hook on type or roller type)



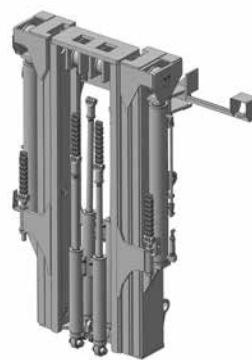
Coil ram



Duplex standard



Duplex free lift



Triplex full free lift





Standard equipment.

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-way's.)
- 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.
- 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

- 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 angels std 5F/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

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



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