

# 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 from 83,000 to 117,000 lbs 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 direct lift simplex mast, when you need to operate within restricted space, also duplex and triplex when you need to lift your load higher.

## Easier to maintain.

With a tiltable cabin, engine hatch covers 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.



### Steel Industry.

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



### Wind Industry.

Our new heavy forklifts can shift and load wind tower sections up to their rated load, for heavier loads you may want to consider our Super Heavy Forklift. Or our Super Gloria Reachstacker, which, when working in tandem, can lift loads in excess of 100 tons.



### 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 117,000 lbs.



## 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.

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 utilization 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 (fps)	1.1	0.9
	At 80% rated load (fps)	1.0	0.9
Lowering Speed	Unloaded (fps)	1.4	1.1
	At rated load (fps)	1.6	1.3
Traveling Speed F/R	Unloaded (mph)	17/12	17/12
	At 80% rated load (mph)	17/11	16/11
Drawbar pull	Max. (lbf)	78680	70140

### Enhanced cooling system.

Our heavy forklifts are available with an optional 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 be safer entering or exiting their forklift, with additional handrails and bars, plus all the climbing surfaces feature non-slip tread. 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 in all directions 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-pillars have been replaced with slim B-pillars, 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 an optional joystick, electronically adjustable work console and side tilt steering wheel, the controls are all designed to minimize driver fatigue and maximize operational efficiency.

## Easy on your drivers.

With an adjustable driver's seat, an improved 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 color 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 EPA Tier 4f 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 very high temperatures. 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 can help ensure 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 radiator cleaner and operating optimally.



**Reverse Alarm System\*.** When your staff are working side-by-side with moving vehicles there is always a safety risk. Installing a reverse alarm 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.

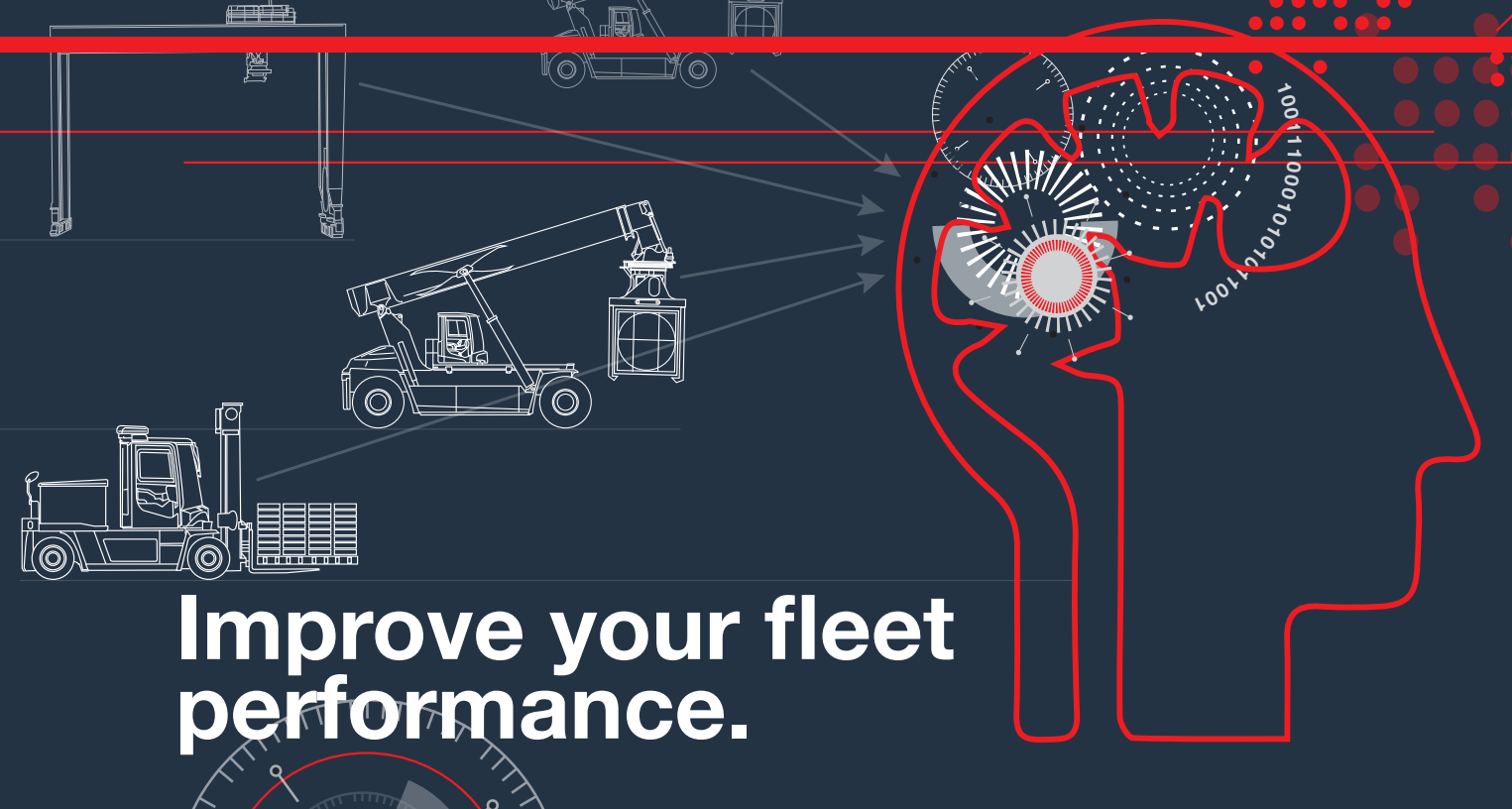


**Tire Pressure Monitoring System.** Helps to reduce wear and tear on tires which results in reduced fuel consumption. Bluetooth sensors keep the driver advised of the condition of the tires at all times. Active care of your tires can result in a 10-40% increase in tire life and up to a 10% decrease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

\*Standard in US/CAN.



# Improve your fleet performance.

## Optimize your forklift with Kalmar Insight.

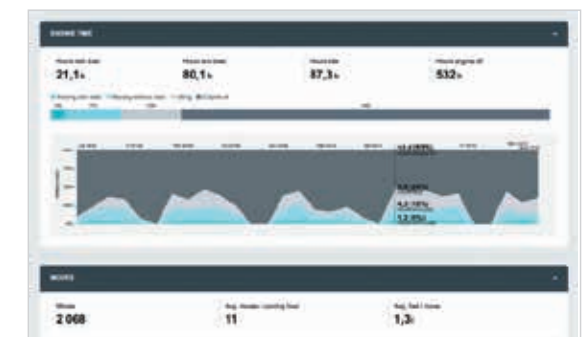
Kalmar Insight is a performance management tool for cargo and material handling, which gives you a valuable and easy to use overview of your daily operations based on equipment status and performance. Making it quicker for you to take action on relevant information that will help you improve your operations,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

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



View each machine's movements as they occur.



Plan your maintenance and spare parts needs.



View each operator's performance in real time.

# 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.

### 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.

### 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 Center.

Our training center 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	DCG420-12	DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12	
PERFORMANCE, VOLVO TAD1171 VE	Lifting speed	Unloaded (fps)	1.1	1.1	1.1	1.1	1.1	1.1	0.9	0.9	0.9	0.9
		At 80 % of rated load (fps)	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
	Lowering speed	Unloaded (fps)	1.4	1.4	1.4	1.4	1.4	1.4	1.1	1.1	1.1	1.1
		At rated load (fps)	1.6	1.6	1.6	1.6	1.6	1.6	1.3	1.3	1.3	1.3
	Traveling speed,	Unloaded (mph)	17 / 12	17 / 12	17 / 12	17 / 12	17 / 12	17 / 12	17 / 12	17 / 12	17 / 12	17 / 12
		At rated load (mph)	17 / 11	17 / 11	12 / 11	14 / 11	9 / 9	11 / 11	16 / 11	16 / 11	16 / 11	16 / 11
	Gradeability, max.	Unloaded (%)	96	104	88	95	83	89	59	62	59	58
		At rated load (%)	43	44	40	41	37	38	30	30	29	28
	Gradeability, at 1.2 mph	Unloaded (%)	58	61	54	57	52	55	40	41	40	39
		At rated load (%)	30	31	28	28	26	27	21	21	20	20
	Drawbar pull	Max. (lbf)	78,680	78,680	78,680	78,680	78,680	78,680	70,140	70,140	70,140	70,140
	Noise level, inside	LpAZ*, Essential cabin (dB(A))	75	75	75	75	75	75	75	75	75	75
LpAZ*, Essential cabin OHG (dB(A))		-	-	-	-	-	-	-	-	-	-	
Noise level, outside	LWA** (dB(A))	112	112	112	112	112	112	112	112	112	112	

# Drivetrains.

		DCG380-540	DCG380-540
ENGINE	Manufacturer's type designation	Volvo TAD 1171VE (Turbo-Intercooler)	Volvo TAD 1151VE (Turbo-Intercooler)
	Fuel, type of engine	Diesel, 4-stroke	
	Rating ISO 3046 / at revs	hp / rpm	355 / 1448-2100
	Peak torque ISO 3046 / at revs	lbf-ft / rpm	1316 / 1400
	Number of cylinders / displacement	l	6 / 10.8
	Fuel consumption, normal driving	gal/h	4.5-5.3
	Diesel Exhaust Fluid consumption, normal driving	% of diesel	3-5
	Emission standard		US EPA Tier 4f
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	amp	AC / 145
	Starting battery, voltage / capacity	V / Ah	2x12 / 145
	Driving axle, manufacturer / type		

\*Tier 3 engines are not for sale nor use in US/Canada nor territories thereof.

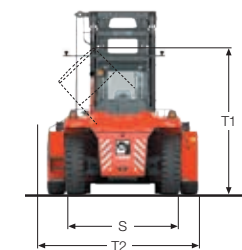
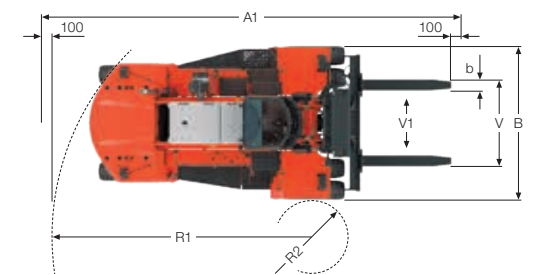
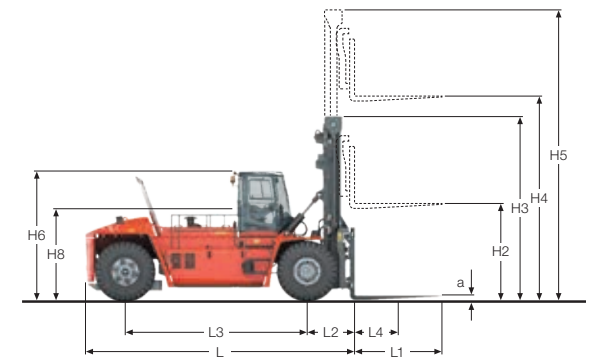
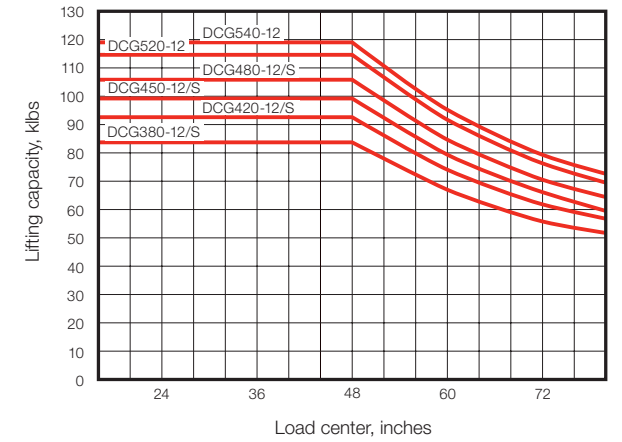
# Lifting equipment.

	Lift height	Mast height	Free lift	Mast height	Free lift		
	H4	H3 min	H5 max	H2	H3 min	H5 max	H2
DUPLEX STANDARD	DCG380-450		DCG480-540				
	138	Available on request with longer leadtimes					
	157	180	258	-	201	280	-
	177	189	278	-	211	300	-
	197	199	298	-	221	319	-
	217	209	317	-	231	339	-
	236	219	337	-	241	359	-
	256	229	357	-	250	378	-
	295	248	396	-	270	417	-
	394	297	494	-	-	-	-
DUPLEX FFL	138	Available on request with longer leadtimes					
	157	179	258	79	-	-	-
	177	189	278	89	-	-	-
	197	199	298	99	-	-	-
	217	209	317	109	-	-	-
236	219	337	118	-	-	-	
TRI.	Available on request with longer leadtimes						
DIR.	Available on request with longer leadtimes						

# Dimensions.

		DCG380-12S	DCG380-12	DCG420-12S	DCG420-12	DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12	
MAIN DATA	Model designation	DCG380-12S	DCG380-12	DCG420-12S	DCG420-12	DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12	
	Power source	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	
	Rated capacity / rated load	lbs 83000	83000	91000	91000	98000	98000	104000	104000	113000	117000	
	Load center distance	in L4		48						48		
	Load distance, center of drive axle to fork	in L2		51.4		51.4	51.4	51.4	56.3	56.3	56.3	56.3
	Wheelbase	in L3	197	217	197	217	197	217	217	237	237	237
WEIGHTS	Service weight	lbs 113325	108915	118835	113985	123025	117950	136470	131620	136690	139115	
	Axle loading, unloaded front	lbs 58205	58865	58205	58865	58205	58865	70550	71210	71210	71210	
	Axle loading, loaded front	lbs 183870	180780	197095	193570	207015	203270	227080	223330	236120	242510	
	Axle loading, unloaded rear	lbs 55120	50050	60630	55120	64820	59085	65920	60410	65480	67905	
	Axle loading, loaded rear	lbs 13230	11910	14335	13010	15215	13890	15215	14115	15215	15655	
WHEELS	Type, front / rear			Pneumatic / Pneumatic					Pneumatic / Pneumatic			
	Tire size, front	inch		18.00x25			18.00x25	18.00x33	18.00x33	18.00x33	18.00x33	18.00x33
	Tire size, rear	inch		18.00x25			18.00x25	18.00x33	18.00x33	18.00x33	18.00x33	18.00x33
	Number of wheels, front / rear (* = driven wheels)			4* - 2					4* - 2			
	Track width, front / rear	in S		120 / 104			120 / 104	120 / 111	120 / 111	120 / 111	120 / 111	120 / 111
	Tire pressure	psi		146					146			
DIMENSIONS	Mast tilt, $\alpha$ = forward / $\beta$ = backward	° $\alpha$ / $\beta$		5 / 10					5 / 10			
	Height of mast lowered	in H3		199			199	221	221	221	221	221
	Lift height	in H4		197					197			
	Height of mast extended	in H5		298			298	319	319	319	319	319
	Truck height - EGO / OHG cabin roof	in H6		140			140	144	144	144	144	144
	Seat height	in H8		98.5			98.5	102.4	102.4	102.4	102.4	102.4
	Height when tilting EGO cab / OHG	in T1		158			158	162	162	162	162	162
	Width when tilting EGO cab / OHG	in T2		166					166			
	Truck length (to face of forks)	in L	288	308	288	308	288	308	316	336	336	336
	Truck width	in B		164					164			
	Fork dimensions, width	in b		11.9					11.9			
	Fork dimensions, thickness	in a		5.4			5.4	5.8	5.8	5.8	5.8	5.8
	Fork dimensions, length of fork arm	in l		94.5					94.5			
	Fork carriage width	in b3		146					146			
	Width over fork arms, maximum / minimum	in V		131 / 37.5			131 / 37.5	130 / 39	130 / 39	130 / 39	130 / 39	130 / 39
	Sideshift $\pm$ @ width over forks	in V1 / V		27.6 / 76.7			27.6 / 76.7	27.6 / 75.1	27.6 / 75.1	27.6 / 75.1	27.6 / 75.1	27.6 / 75.1
	Ground clearance, laden, below mast	in		10.6					10.6			
	Ground clearance, machine	in		9.4			9.4	11.8	11.8	11.8	11.8	11.8
	Min. aisle width for 90° stacking with forks	in A1	426	446	426	446	426	446	480	500	500	500
	Turning radius	in R1	272	292	272	292	272	292	321	341	341	341
Internal turning radius	in R2	39.4	43.4	39.4	43.4	39.4	43.4	43.4	47.3	47.3	47.3	
OTHERS	Operating pressure for hydraulics	psi 2829	2829	3046	3046	3191	3191	3191	2829	3046	3119	
	Hydraulic oil tank, capacity	gal		158					158			
	Fuel tank, capacity	gal		118					118			
	Diesel Exhaust Fluid tank, capacity	gal		9					9			

Lifting capacity in lbs.







# KALMAR

Making your every move count

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