



Kalmar Top Loader

**Making your  
life easier.**

DCG400GS-410GS

 **KALMAR**





# It's an easy choice to make.

Our new top loaders deliver on so many fronts. They are reliable, safer and easier to maintain and operate, making them a very easy choice to make.

## **A common platform makes things easier.**

With over 10,000 machines now built on our G-Generation platform, you can expect your new Kalmar Top Loader to be easier to operate and maintain as it has all of Kalmar's experience and knowledge built in.

## **Easier to operate.**

Your top loader comes fitted with our ergonomically designed cabin which has improved visibility and fully adjustable steering wheel, seat and control panels. Plus, your drivers will be comfortable all year round with heating and ventilation fitted as standard or you can add an optional Electronic Climate Control system for extra comfort.

## **Easier to lift heavy loads.**

All of our G-Generation top loaders come fitted with a variable hydraulic lifting system, which provides exactly the right amount of lifting power based on the weight of your load, saving you fuel as your drivers no longer need to rev the engine while lifting.

## **Easier to solve issues.**

With improved diagnostics and fewer moving parts and components, issues will be quicker to identify and solve getting your top loader back to work as soon as possible.

## **Easier to service and maintain.**

With easily accessible service points, engine hatches instead of a hood, and extended service intervals, your new top loader will be easier and quicker to maintain, saving you time and money.



*Easier to operate with our ergonomically designed cabin.*



*Service and maintain with easy access hatches.*



## A robust, hard working machine.

Kalmar solutions are known for their reliability and durability and our new top loader is no exception. The top loader's chassis is mechanically welded and optimized according to three main parameters: strength, weight and stability. In addition, the machine's stability has been improved by creating the perfect balance between the counter-weight and the lifting height. We also go to great lengths to make sure that the systems and components fitted to our top loaders are made to last.

The result of bringing together improved stability, an optimized chassis and components and systems that are manufactured to last will deliver a much more robust and durable machine that is ready to get to work.





# Easier to operate.

Our new top loader 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 best every day, with ease.



#### Improved visibility.

A-posts have been replaced with slim B-posts, to provide greater visibility in all directions: forward, rearward, upward and to the side. 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 upward view stays extra clean and clear at all times.



#### Minimize driver fatigue.

With levers or an optional joystick, electronically adjustable work console and side tilt steering wheel, the controls and settings are all designed to minimize driver fatigue and maximize operational efficiency.



#### More comfortable.

With an adjustable driver's seat, quieter cabin and climate control system with smarter controls, your driver will benefit from improved ventilation, heating and cooling, plus a cabin with superior interior comfort. An optional cabin air intake precleaner can also be fitted if required.



#### An improved user interface.

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.

## Easier on the environment.

There are many easy things you can do to cut your emissions and reduce your fuel bill without compromising the operational efficiency of your top loader. The less fuel you use, the less CO<sub>2</sub> you produce.



#### in fuel costs and emissions.

You will benefit from a reduction of up to 5% in fuel consumption and emissions with our range of highly efficient drivelines in comparison to the drivelines fitted in our previous generation of top loaders.



#### off your fuel costs and emission.

All of our top loaders are fitted with variable hydraulic systems which adjust their effort to the weight of the load they are moving, resulting in up to a 10% reduction in fuel costs and emissions.



#### more in fuel costs and emissions.

All of our top loaders are fitted with a lock-up gear-box as standard which is able to use the power your engine produces much more effectively, resulting in a further reduction of up to 10% in fuel consumption and emissions.



#### in fuel costs and emissions.

All of our G-Generation Top Loaders come fitted with Eco Drive, which when set in Eco Mode can cut your fuel consumption and emissions by up to 25%.



## Kalmar Training Center.

There are many ways that your drivers can operate their top loader more effectively without compromising on their productivity. The Kalmar Training Center offers a range of courses that can help your driver operate their machine more efficiently, helping to further reduce your fuel bill and emissions.





# Easier to maintain.

Our new range of top loaders have been designed to reduce the time and effort required to service and maintain them.

With fewer moving parts and components, improved access to service points and longer service intervals you will spend less time and money on keeping your machine in optimal working condition.

You can also manage your service and maintenance activities through Kalmar Insight\*, and MyKalmar can provide your drivers with a daily service check list to make sure nothing is missed.

### Safer to operate.

To keep your drivers and colleagues secure we have introduced a number of additional safety features. Your drivers will now be safer entering or exiting their top loader from either side, as there are more handrails and bars allowing for 3-point contact at all times, plus all the climbing surfaces are non-slip. Our EGO Cabin provides improved visibility both forward, rearward and upward and there are a number of additional safety options to make your machine even safer when in operation.

There are also a number of upgrade options available which can further enhance the operational safety of your top loader including a Rear Vision Camera with monitor in the cab that lets you see what is going on behind you, Travel Speed Limitation which makes sure your drivers are operating within designated application speed limits and Seat Belt Interlock to help enforce seat belt usage.



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



# 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.



### 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.



### 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 breathalyzer.



### 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 top loader.



### Reversible Engine Fan.

If your top loader needs to operate in a dirty and dusty environment then a reversible fan can help keep your radiator cleaner and operating optimally.

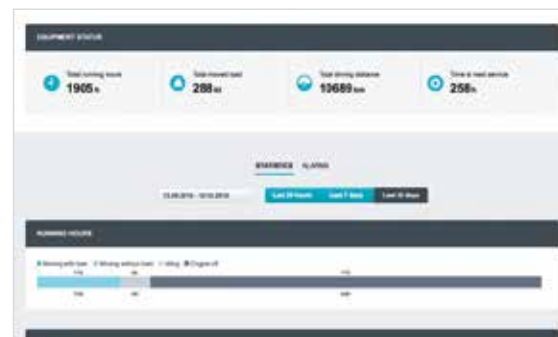




# Improve your fleet performance.



View each machine's movements as they occur.



Plan your maintenance and spare parts needs.



View each driver's performance in real time.

## Optimize your equipment 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.



# All the support you need.

## 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 top loader 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. Drivers 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.



# Technical information.

		DCG400GS 4/4	DCG400GS 5/5	DCG400GS 6/5	DCG410GS 4/4	DCG410GS 5/5	DCG410GS 6/5	DCG410GS 6/6
<b>MAIN DATA</b>	Power source	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
	Lifting capacity, rated (lb) - extended	88100	88100	85900	90300	90300	90300	90300
	Lifting capacity reduced, >5 high (lb) - extended	-	-	74900	-	-	-	-
	Lifting height, number of containers 8'6"/9'6"	4/4 high	5/5 high	6/5 high	4/4 high	5/5 high		
<b>WEIGHTS</b>	Service weight (lb)	152780	157190	158955	157635	162040		
	Axle load front, unloaded (lb)	90390	94800	96565	94800	99210		
	Axle load front, at rated load (lb), retracted - extended	216055 - 219140	220465 - 223550	219140 - 222010	223770 - 226635	228180 - 231045		
	Axle load rear, unloaded (lb)	62390	62390	62390	62835	62830		
	Axle load rear, at rated load (lb), retracted - extended	24905 - 21820	24905 - 21820	25795 - 22925	24255 - 21390	24250 - 21385		
<b>WHEELS</b>	Type	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic		
	Tire size	18.00 x 25	18.00 x 25	18.00 x 25	18.00 x 33	18.00 x 33		
	Number of tires front / rear (x = driven wheels)	4x / 2	4x / 2	4x / 2	4x / 2	4x / 2		
	Track (c-c), front - rear (in)	S1 - S2	119* - 103	119* - 103	119* - 103	119* - 111	119* - 111	
<b>DIMENSIONS</b>	Mast tilting, forward - backward (°)	∂ - β	5 - 10	5 - 10	5 - 10	5 - 10		
	Mast height, min. (in)	H3	293	352	372	297	356	
	Lifting height under twistlocks (in)	H4	475	593	632	479	597	
	Height under twistlocks, min. (in)	H10	81	81	81	85	85	
	Mast height, max. top of spreader (in)	H5	552	670	709	556	674	
	Height of machine, cabin (in)	H6	189	189	189	193	193	
	Seat height, (in)	H8	148	148	148	152	152	
	Length of truck (in)	L	433	433	433	433	433	
	Distance front axle / front edge of mast (in)	L2	37	37	37	37	37	
	Wheelbase (in)	L3	236	236	236	236	236	
	Load center (in)	L4	64	64	64	64	64	
	Load center with extended spreader (in)	L7	72	72	72	72	72	
	Width of truck (in)	B	163*	163*	163*	163*	163*	
	Ground clearance, min. under truck (in)		9.4	9.4	9.4	11.8	11.8	
	Turning radius, outer (in)	R1	341	341	341	341	341	
	Turning radius, inner (in)	R2	47	47	47	47	47	
	Min. aisle width for 90° stacking with 20' container (in)	A1	496	496	496	496	496	
	Min. aisle width for 90° stacking with 40' container (in)	A2	575	575	575	575	575	
	Attachment width, min - max (in)	V	239 - 480	239 - 480	239 - 480	239 - 480	239 - 480	
	Hydraulic slewing (°)		±3	±3	±3	±3	±3	
Sideshift, ± either side center (in)	V1	15.7	15.7	15.7	15.7	15.7		
Leveling (°)		±5	±5	±5	±5	±5		
<b>MISC.</b>	Max hydraulic pressure (psi)		2900	3045	2900	2900	3045	
	Hydraulic oil tank, capacity (gal)		159	159	159	159	159	
	Fuel tank, capacity (gal)		225	225	225	225	225	
	DEF (AdBlue) tank, capacity (gal)		17	17	17	17	17	

\* Wide drive axle available as option; Truck width (in) 193, Track (c-c) front (in) 149

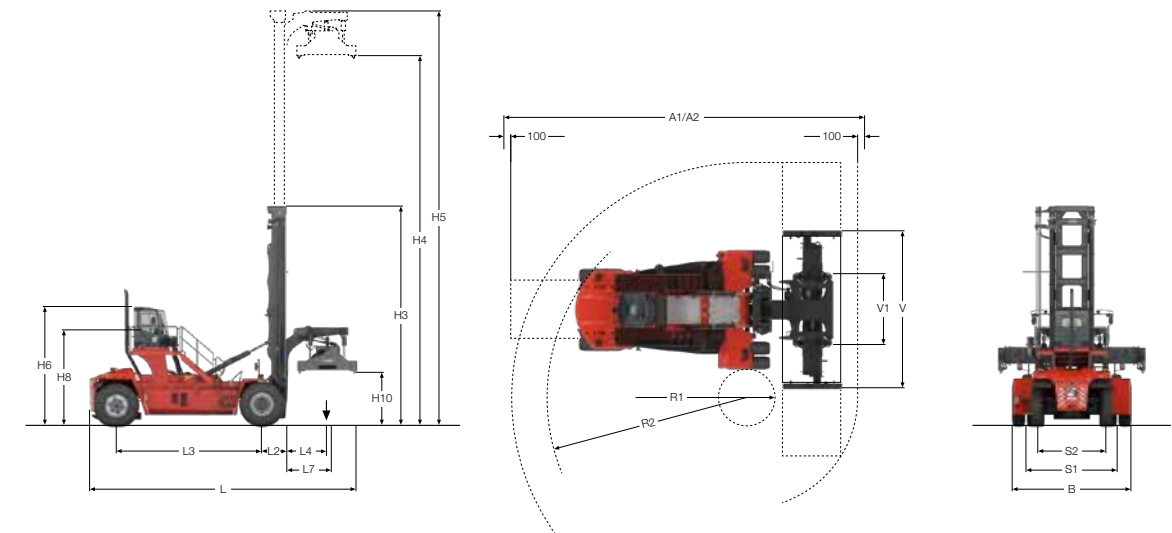
## Performance.

		Volvo TAD1151VE (3A) / TAD1171VE (4f)	Volvo TAD1151VE (3A) / TAD1171VE (4f)
<b>Tires</b>	Dimensions	18.00 x 33	18.00 x 25
<b>Performance</b>			
<b>Lifting speed</b>	Unloaded (fps)	1.4	1.4
	At 70% rated load (fps)	0.9	0.9
<b>Lowering speed</b>	Unloaded (fps)	1.5	1.5
	At rated load (fps)	1.6	1.6
<b>Traveling speed, F/R</b>	Unloaded (mph)	16.8 / 12.4	16.8 / 12.4
	At rated load (mph)	15.5 / 11.2	16.8 / 11.2
<b>Gradeability, max.</b>	Unloaded (%)	47	57
	At rated load (%)	28	33
<b>Gradeability, at 1mph</b>	Unloaded (%)	33	38
	At rated load (%)	20	23
<b>Drawbar pull</b>	Max. (lbf)	70140	78680

## Drivetrain.

		Volvo TAD1151VE	Volvo TAD1171VE	
<b>ENGINE</b>	Manufacturer's type designation	Volvo TAD 1151VE (Turbo-Intercooler)	Volvo TAD 1171VE (Turbo-Intercooler)	
	Fuel, type of engine	Diesel, 4-stroke	Diesel, 4-stroke	
	Rating ISO 3046 / at revs	hp / rpm	355 / 1448-2100	355 / 1448-2100
	Peak torque ISO 3046 / at revs	lb-ft / rpm	1316 / 1260	1316 / 1260
	Number of cylinders / displacement	# / L	6 / 10.8	6 / 10.8
	Fuel consumption, normal driving	gal/h	4.5-5.3	4.5-5.3
	AdBlue consumption, normal driving	% of diesel	N/A	3-5
Emission standard		US EPA Tier 3*	US EPA Tier 4f	
<b>GEARBOX &amp; MISC</b>	Manufacturer's type designation	Dana TE30500	Dana TE30500	
	Clutch, type	Torque converter with Lock-up	Torque converter with Lock-up	
	Gearbox, type	Hydrodynamic Powershift	Hydrodynamic Powershift	
	Numbers of gears, forward / reverse	5 / 3	5 / 3	
	Alternator, type / power	W	AC / 3080	AC / 3080
	Starting battery, voltage / capacity	V / Ah	2x12 / 145	2x12 / 145
	Driving axle, manufacturer / type		Kessler D102 / Differential and hub reduction	Kessler D102 / Differential and hub reduction

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





# KALMAR

Making your every move count

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