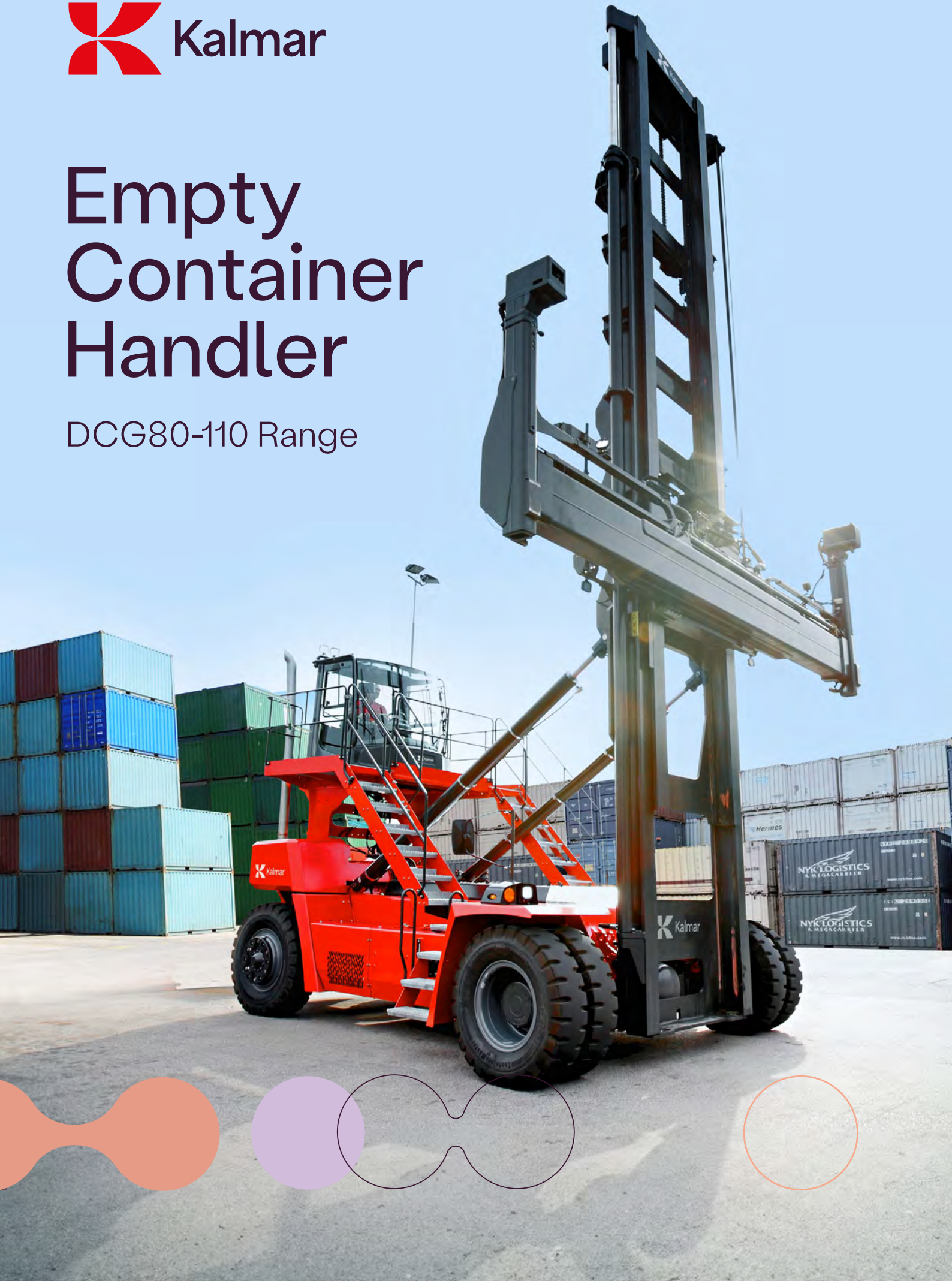




# Empty Container Handler

DCG80-110 Range



# More for you

**Our extensive range of Kalmar empty container handlers offer you more than they ever have before, which means you get more for your money.**

## The market's largest range

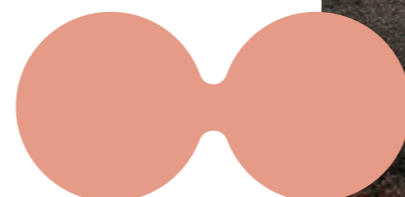
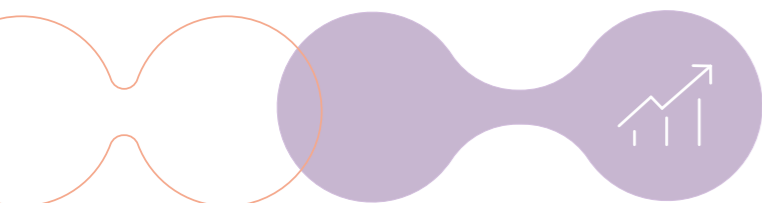
You get more choice of machines, with a range of single stackers in 8, 9 and 10 tonne capacities and lifting heights from 4 to 8-high. Double stackers are available in 10 and 11 tonne capacities, with stacking heights from 4+1 to 8+1-high. Plus, a greater choice of drive lines and performance levels that you can match to your individual needs. More comfort for your drivers, as all of our new range comes with our state of the art EGO Cabin, which can be situated in either a high or low position on the chassis.

A more robust and efficient range, with the highest lifting and lowering rates and dramatically reduced running costs per move. Plus easier access for service and maintenance and more options across the whole range to choose from than ever before.

No matter how you look at it, the new range of Kalmar empty container handlers gives you more.

## Expect nothing less

With nearly 10,000 empty container handlers built to our high standards over the last 30 years, it's no surprise that 1000's of them are still in operation today. In fact over 90% of our customers say they would repurchase a Kalmar empty container handler again, primarily for their superior durability and reliability and the local Kalmar support and service network.



**The operability and control of the Kalmar Empty Container Handler is extremely good. It's agile, suitable for any empty container yard.**

Zhang Lin, Operator at NingBo Beilun, International Container Terminals Ltd.

# More across the entire range

## More options

Now more safety features and options to customise your machine than ever before. From reverse warning systems to a range of different power sources and spreaders.

## More return

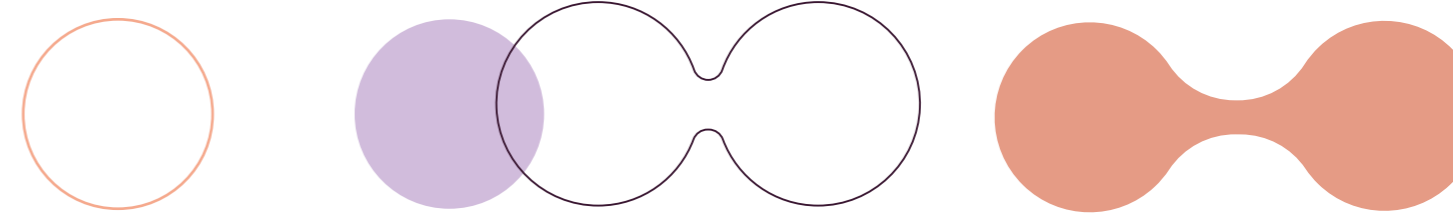
Higher productivity with zero emissions at source means a greener, lower cost per move. Longer servicing intervals with easier access for service and maintenance, saving you time and money. Plus, the highest re-sale values in the market.

## More robust

Built on our proven G-Generation platform you get a stronger chassis with high and rear mounted cylinder package for improved stability and toughness. You also get upgraded drive axles with oil-cooled wet disc brakes and a wider rear steer for greater stability when lifting heavy loads to heights.



Double stackers, up to 11 tonnes, high mounted cabin.



## More choice

You can choose from either a single stacker with three lifting capacities or a double stacker with two lifting capacities. There are 4 different cabin offerings, with low or high mounting and the choice of single or dual access stairways. All machines can be equipped with mechanical or hydraulic side tilt or pile slope and there are 6 spreader choices.

## More efficient

Proven, powerful and efficient drive lines in both medium and high performance versions with 3 or 4 speed fully automatic transmissions and a choice of engines that meet current emission standards (EU stage 3-4-5 / EPA Tier 3 and 4F). The added efficiency of standard load sensing hydraulics (power-on-demand) and a choice of options for greater fuel efficiency including Eco Drive Modes, Stop/Start technology and a Tyre Pressure Monitoring System.

## More comfort

Our EGO cabin with multi-functional joystick or linear lift levers is ergonomically designed and provides an extremely quiet working environment and improved visibility in all directions. Plus, a new tilt cylinder design for greater stability and control.

## More safety

Kalmar smart controls include several important safety functions as standard. The overload protection system offers safety information with the container weight in the main display, including warnings and pop-up messages. There is also a mechanical mast tilt indicator on the tilt cylinder and a transport position striping in the mast for additional driver and operational safety.



Single stackers, up to 11 tonnes, low mounted cabin.

# More choice

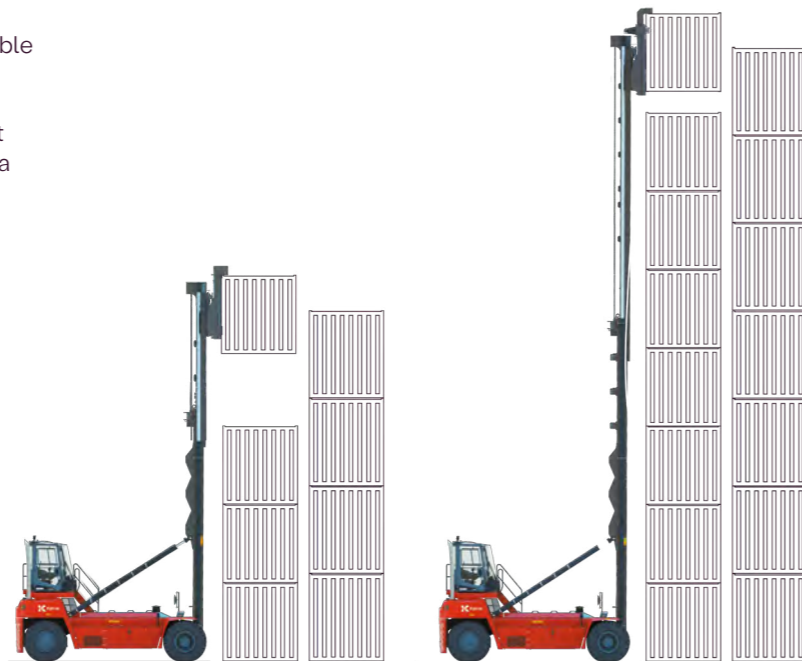
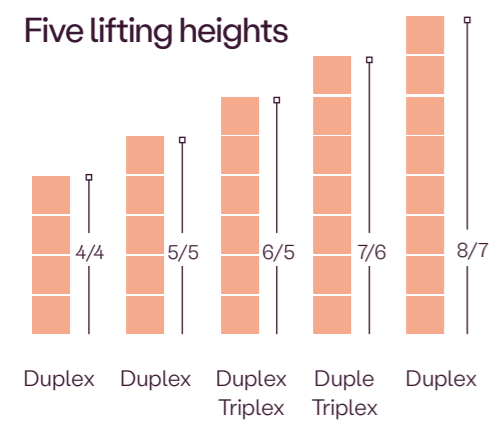
Choose from six different machines depending on your needs. The single stackers are available in 8, 9 and 10 tonne capacities and the double stackers in 10 and 11 tonne models. Both ranges share the same main components and performance levels.

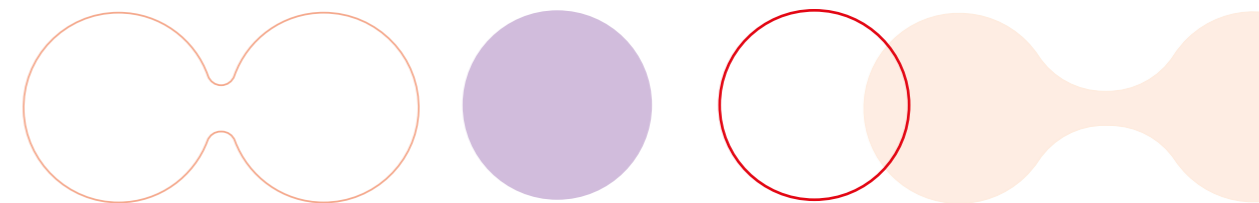
## A choice of lifting heights

We have five different duplex mast heights (2-stage) to choose from, which give you the ability to stack from 4-high up to 8+1-high.

You can choose from 4/4-high up to 8/7-high (stacking heights) for the containers sizes of 8'6" / 9'6" and you can handle one container higher with our double stacker as you are able to carry your containers "1 over 1". Plus, we offer a low-built triplex mast (3-stage) which will allow you to operate in height restricted areas or when you need to drive inside a factory.

### Five lifting heights





## A choice of spreaders

The first thing you need to do is know what sort of containers you will be handling, then you can decide what sort of lifting head / spreader version you will need on your single or double spreader.

For single stacker toplift spreaders you can choose from lifting heads with either a standard twistlock position (8' wide) for ISO containers or a wide twistlock position (8'6") and / or wide body containers (WBC / 8'6" wide).

For double stacker sidelift spreaders there are three choices:

1. Side lift hooks and hydraulic side clamps - suitable for double stacking of 20'-40' containers, and also compatible with single lifts up to 53' in length.
2. Lift head with hooks-n-clamps including additional safety wedge, that will lock single containers of 45-53' length.
3. Bromma SLH40T with Twin side lift twist locks for tight stacking.

## A choice of spreader and lift beam levelling

All spreaders come with two different solutions for spreader carriage and lifting heads.

Choose from either:

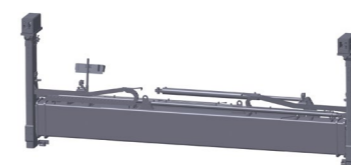
1. A standard mechanical end beam levelling carriage (MPS, mechanical pile slope, stroke 0-250 mm)
2. Or the optional combined hydraulic pile slope (HPS ± 5 deg) and mechanical pile slope functions.

These solutions are ideal for operating on uneven grounds and poor yard conditions or when loading handling containers onto tilting trailers.

## 4 lifting capacities

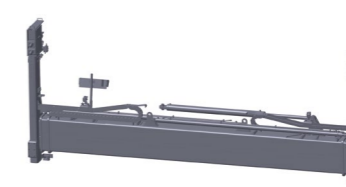


### Single stacking

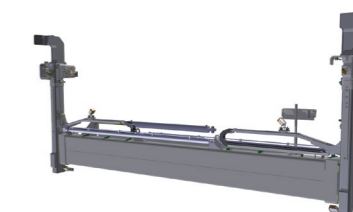


**Single Stacker** Toplift Spreader – TWL-WTP (Wide Twistlock Position)

### Double stacking



**Twin TWL – Double Stacker Spreader**



**Hook, Clamp & Safety Wedge Double Stacker Spreader<sup>1</sup>**



To us, Kalmar offers the best machines. It's the safest truck we've used. Kalmar also offers excellent service support.

He Jianguo. Container Handler Unit leader, G-Fortune (Ningbo) Company.

<sup>1</sup> Twin TWL can handle 45'-53' double containers. Hook system supports single 45'-53' container handling. Double stacking only possible for containers up to 40'.

# More comfort, extra smart



Every member of our empty container handler range comes fitted with our EGO cabin, the ultimate operating environment for your driver.

With a more ergonomic design, smarter functions and an intuitive workspace than ever before, you can expect to get more from your operators.

## More to see

With A-posts being replaced with slim B-posts you can expect greater visibility in all directions: forward, backward, to the side and upwards. Our new dual wiper system cleans a bigger area of the front windscreen than before so your forward view will stay extra clean and clear.



## More comfortable

With a choice of comfortable driver seats, a fault safe pedal system and powerful Electronic Climate Control (ECC) system with smarter controls your operator will benefit from improved ventilation heating and cooling, plus a cabin with superior comfort and lowest noise level inside and outside.

## Easy to operate

With a wide choice of joysticks or lifting levers, an electronically adjustable work console and side tilt steering wheel they are designed for ease of operation, making them more efficient to operate.

## Extra smart

Our intuitive user interface combines visibility, sound and touch to create a perfectly balanced operating environment with an intelligent colour display at its heart. Advanced diagnostics and smart settings allow for improved operational control and safety.

# More efficient



## More choice of drive lines

You can choose from either Medium Performance (MP) or High Performance (HP) drive lines. The MP engine and transmission combination can handle most day-to-day applications. However, if you need that extra power and faster lifting speed, then the HP combination might be more suitable. Both options come with Eco Drive modes with three different operating modes.

### Two performance alternatives



	Engine Power	Engine Torque	Transmission	Lift & Lowering Speeds
<b>Medium</b>	160-170 kW (max 2100 rpm)	900-1000 Nm	3+3 gears (no lock up)	↑ 0.55 - 0.50 m/sec ↓ 0.50 - 0.60 m/sec
<b>High</b>	180-190 kW (max 1800 rpm)	1100-1200 Nm	4+4 gears (with lock up)	↑ 0.65 - 0.60 m/sec ↓ 0.55 - 0.60 m/sec

## More performance on demand

Our entire range of empty container handlers comes with ECO Drive modes, giving you three different power modes to choose from.

### Power Mode:

when speed is of the essence. With full engine speed, you will be able to move quickly around the yard, lift and lower, without compromising on safety.

### Normal Mode:

when you need to retain some speed. With a slightly reduced engine speed you can expect 5-15% lower running and fuel costs.

### Economy Mode:

when you need the lowest running costs. With engine speed reduced even further you can expect 10-25% lower running and fuel costs.

Save up to **5-15%** in running costs

Save up to **10-25%** in running costs

# More value

**Being the most reliable and robust range of empty container handlers in the market can give you real advantages, like higher uptime and lower total running costs.**

## Safer to operate

With a clearer view forward, backward and upward, a new ergonomically designed cabin, non-slip access surfaces with supporting handrails, plus numerous safety options to choose from including our Reverse Warning System, Alcolock and four overload alerts you can be sure that your operator is working in a safe environment.

## Lowering operating costs

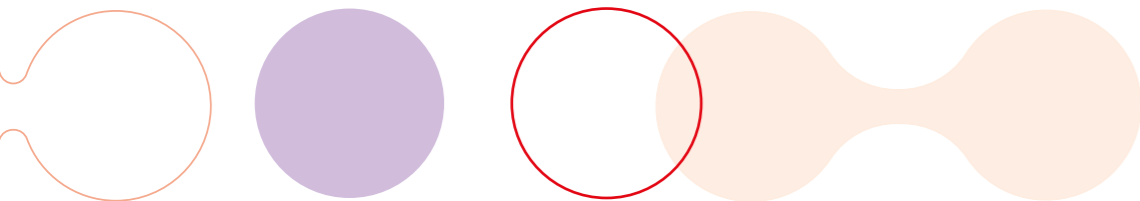
You get longer servicing intervals than before so you can keep your machine hard at work for longer. Plus, with the addition of advanced diagnostic tools and monitoring systems, faults can be dealt with quickly, thereby reducing any downtime.

## Higher resale values

With over 10,000 machines built to the high standard you expect from us - Kalmar Empty Container Handlers are known for their reliability and durability which is why they demand the highest resale values in the market.

## Best lifetime value

Higher uptime, improved productivity and lower costs per move coupled with high re-sale values means you can expect one thing; the best lifetime value you can expect of any empty container handler.



# More options



A large range of options to make your operations even safer and more eco-efficient.

## Kalmar has a range of options that make operating your equipment even safer



**Fire Suppression System.** To protect your operator and machine from fire you can fit a Fire Suppression System\* to your machine. The system utilises multiple spray nozzles that release a high pressure water mist where the fire has been detected from a re-chargeable water tank. This can be activated manually or automatically through an in-cabin temperature sensor.



**Alcolock.** To ensure that your driver is at their best when operating your equipment you can install an Alcolock system. This system makes sure that the driver meets alcohol blood level standards before being able to start the machine, much like a breathalyser.



**Visual and Sound Alert Solutions.** In work environments with limited sight, mixed traffic, and/or pedestrians in the vicinity, e.g., warehouses, lumber or container yards, the lowest level of safety precaution is to ensure the surroundings are made aware of the moving equipment. We have visual alert solutions such as rotating beacon, strobe flash, or blue spot safety light for this. As an audible alternative or complement, a Reverse Alarm with beeping or white sound function can be selected.



**Additional lighting.** Extra lighting, particularly if you operate your machine at night, as you can bring greater operational visibility and safety for personnel working on the site. You can choose additional LED working lamps on specific positions.



**Kalmar Safety Cameras and Detection Solutions\*\*.** There is a wide range of camera and detection solutions available that will enhance the overall safety of your equipment when in operation. Cameras will extend and enhance the driver's visibility range, improving safety and productivity depending on placement. Top level options offer surround view, the ability to record the course of events, and alert the driver of pedestrians in the vicinity of the equipment. Adding radar sensors will warn about objects when reversing. You can choose one solution or combine a number together.



**Safety cage.** An additional safety cage can be fitted around the cabin to provide additional safety for your driver from falling cargo.



**Cabin options.** Depending on your specific needs you can choose from a low or high mounted cabin (+600mm). High cabins provide better visibility for the driver particularly when working with two containers or on high stacks.



**Container Checking System.** The Kalmar Container Checking System makes it easy, fast and safe to identify and report containers that are not safe to handle. By automatically locking the mast and spreader to ensure a secure inspection position which makes the machine inoperable while in inspection mode, it will keep your team safe. The system ensures that damaged containers will be removed from service and not be filled with goods and shipped on, potentially causing issues at the next handling facility. If an insurance claim needs to be raised then this system can also help provide the documented evidence you need to support your claim.

## Kalmar has a range of solutions that will help make your equipment more eco-efficient and sustainable



**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 continually. Active care of your tyres can result in a 10-40% increase in tyre life.



**Start/Stop function.** An optional start/stop function can be added to automatically activate and deactivate the machine. In addition to reducing unnecessary emissions and extending the lifespan of components, this makes it possible to achieve up to 10% in fuel savings.

\* Cannot suppress an electrical fire.

\*\* Part of the Kalmar EagleEye offering.

# More safety fitted as standard

## All Kalmar equipment is compliant with EN 1175:2020.

At Kalmar, the safety of people working with our machines is always at the top of our minds, which is why meeting global safety standards is important to us. The safety standard EN 1175:2020, which sets the electrical and electronic component standards for industrial trucks, has been updated to improve the safety of these machines while in operation. This update is valid from April 2023. All Kalmar counter balanced machines, including reachstackers, empty container handlers and forklifts have been updated to meet this new standard to ensure that working with a Kalmar machine is as safe as it can be.

For Kalmar, the safety of your drivers and maintenance staff is of critical importance, which is why our machines come with many more safety features fitted as standard than other machines available in the market.

The features listed here come fitted as standard on all Kalmar machines. You can enhance your employees' safety further by fitting your machine with our additional safety options listed on the following pages.



**2-point seat belt.** Ensures that your driver is safe and secure while operating our equipment, all Kalmar machines are equipped with an adjustable 2-point seat belt system.



**3-point Contact System.** Makes sure your drivers are safe when entering or exiting our equipment. All machines are fitted with steps and handles to ensure they can always maintain three points of contact with the vehicle, helping to prevent accidents.



**Double brake pedals/ Dual brake pedals.** The right-hand-side brake pedal is intended for emergency braking, particularly useful for operators familiar with automotive controls. Giving the driver the flexibility to choose which foot to use.



**Steps with anti-slip protection.** To reduce the risk of your driver slipping or falling on our equipment, all entering and exiting points are fitted with non-slip surfaces giving them extra grip, so your drivers stay safe.



**Control System.** All our equipment is fitted with an electronic Control System for monitoring the machine's different functions while in operation, helping to keep your driver fully informed at all times with up-to-date Operating, Event Controlled and Error Code information.



**Operating information.** Our equipment's Control System provides several operating information menus, which give your operator and maintenance personnel a great insight into the on-going performance of the machine, allowing them to keep it running optimally.



**Event controlled information.** Provided through the Overload Protection System to warn the driver through the equipment's Control System if their load exceeds the specified safety limits.



**Error code information.** Should there be any issue with your equipment while in operation, the electronic control system will immediately alert your driver with the appropriate error code, so they know exactly what is going on and can take appropriate action.



**Display.** Cabins are fitted with a large easy-to-read display which keeps your drivers fully aware of the machine's on-going performance and any maintenance actions that need to be taken.



**Reverse Camera System.** Knowing what is going on behind you is critical when reversing your equipment, which is why they are all fitted with a

high-resolution [1080p] cabin display screen and reversing camera.



**Control Breaker Switch.** Manually activated to immediately stop all power transmission and load handling functions in emergencies. Cuts power to both the hydraulic and electric drive systems for safety.



**Operator Presence Detection System.** Maintains safety for both the driver and pedestrians, as all our equipment is fitted with an alarm or visual indicator that comes on automatically if:

- The seat belt is not fastened while in operation.
- The driver leaves the driver's seat without engaging the parking brake.

The system includes a buzzer in the cab and visual warning lights.

Additionally, if the driver leaves the seat while the machine is active, the electric drive is shut off and load-handling functions are disabled.



**Engine/transmission Protection and Warning Systems.** Warning systems, designed to protect your machine's driveline in case of higher than expected temperatures or a pressure build up, are standard on all equipment, avoiding unnecessary mechanical failures.



**External reverse light.** For the safety of others, all our equipment is equipped with external reversing lights that help the driver keep everyone informed that they are moving backwards.



**LED lights.** These come fitted as standard on all our equipment, providing better visibility when working in reduced light than halogen lights.



**Neutral Start Interlock.** Prevents the machine from starting unless all drive and load handling controls are in a neutral position. This protects the driveline and ensures there's no unintended movement when powering on the machine.



**Protection against falling objects.** Cabin roof windows on all our equipment are fitted with high strength materials which can withstand heavy blows, helping to protect your drivers from falling objects.



**Good visibility.** Kalmar cabins provide your drivers with excellent visibility, forwards, upwards, sideways and behind them to help them stay safe while in operation.



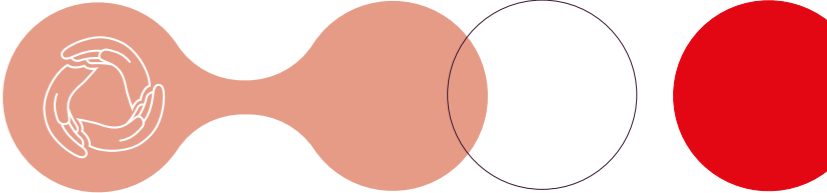
# Keep moving with Kalmar Services

To keep your business moving Kalmar Services offers a range of services that can help you keep your equipment moving optimally.

## Kalmar Care

**Care that keeps your business moving.**  
 With Kalmar Care you get a flexible service that's built around your business. Including, the experience and knowledge of Kalmar's dedicated staff, coupled with transparency and increased predictability of costs.

Kalmar Care is available in three different service models: our two customisable contracts – Essential Care and Complete Care – and our flexible solution On Demand Care.



### Service models:



**Essential Care**  
 A maintenance solution to keep your equipment in an optimal condition.



**Complete Care**  
 A complete service solution providing piece of mind and maximum equipment uptime.

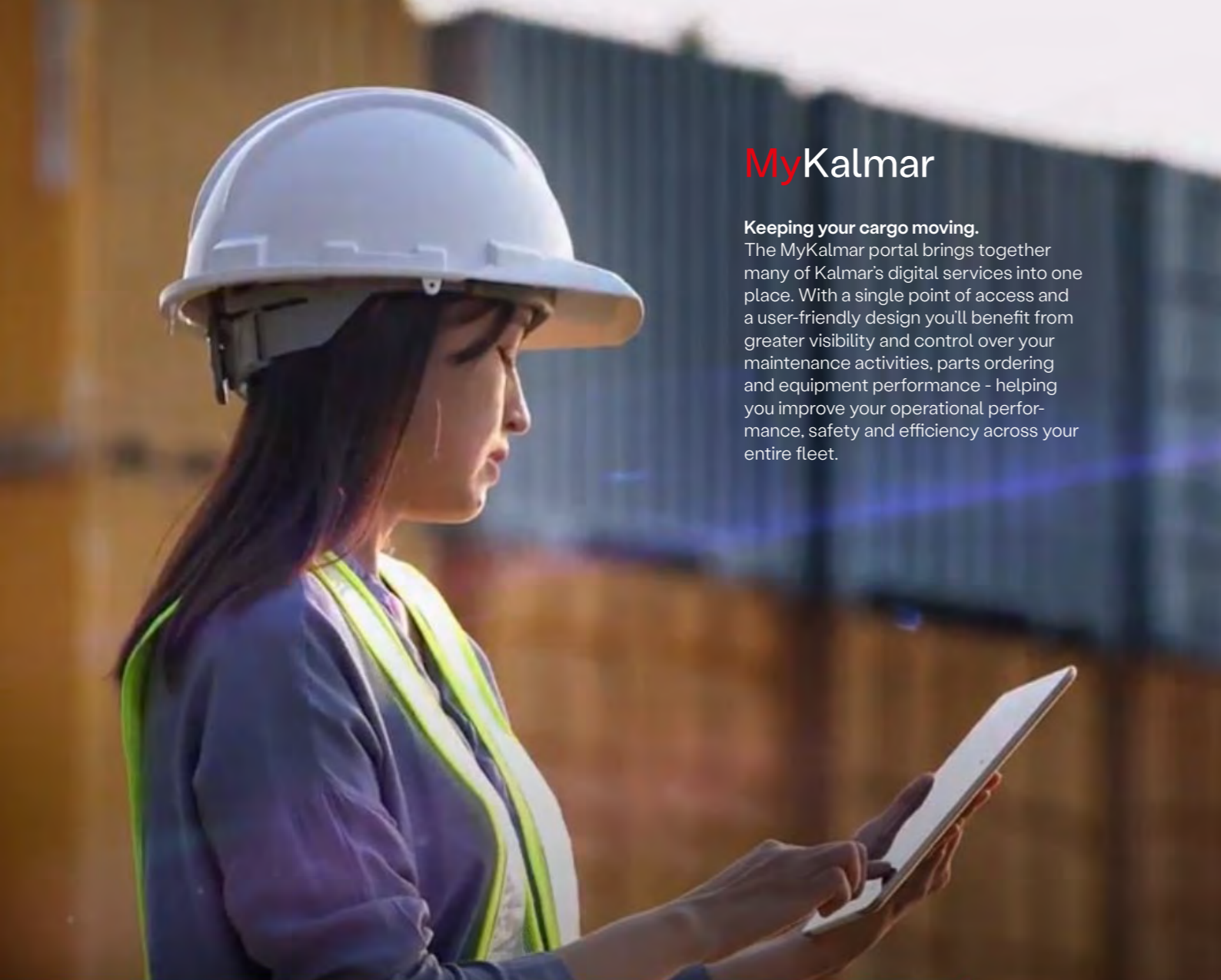


**On Demand Care**  
 Top-of-the-line service whenever you need it.

Maintenance Planning	●	●
Preventive Maintenance	●	●
Predictive Maintenance		●
Corrective Maintenance		●
Preventive Spare Parts	●	●
Corrective Spare Parts		●
Lubricants	●	●
MyKalmar	●	●
MyKalmar INSIGHT	●	●
Tyre Maintenance		●
Battery Maintenance		●

● Included ● Optional

Top-of-the-line service whenever you need it



## MyKalmar

**Keeping your cargo moving.**  
The MyKalmar portal brings together many of Kalmar's digital services into one place. With a single point of access and a user-friendly design you'll benefit from greater visibility and control over your maintenance activities, parts ordering and equipment performance - helping you improve your operational performance, safety and efficiency across your entire fleet.

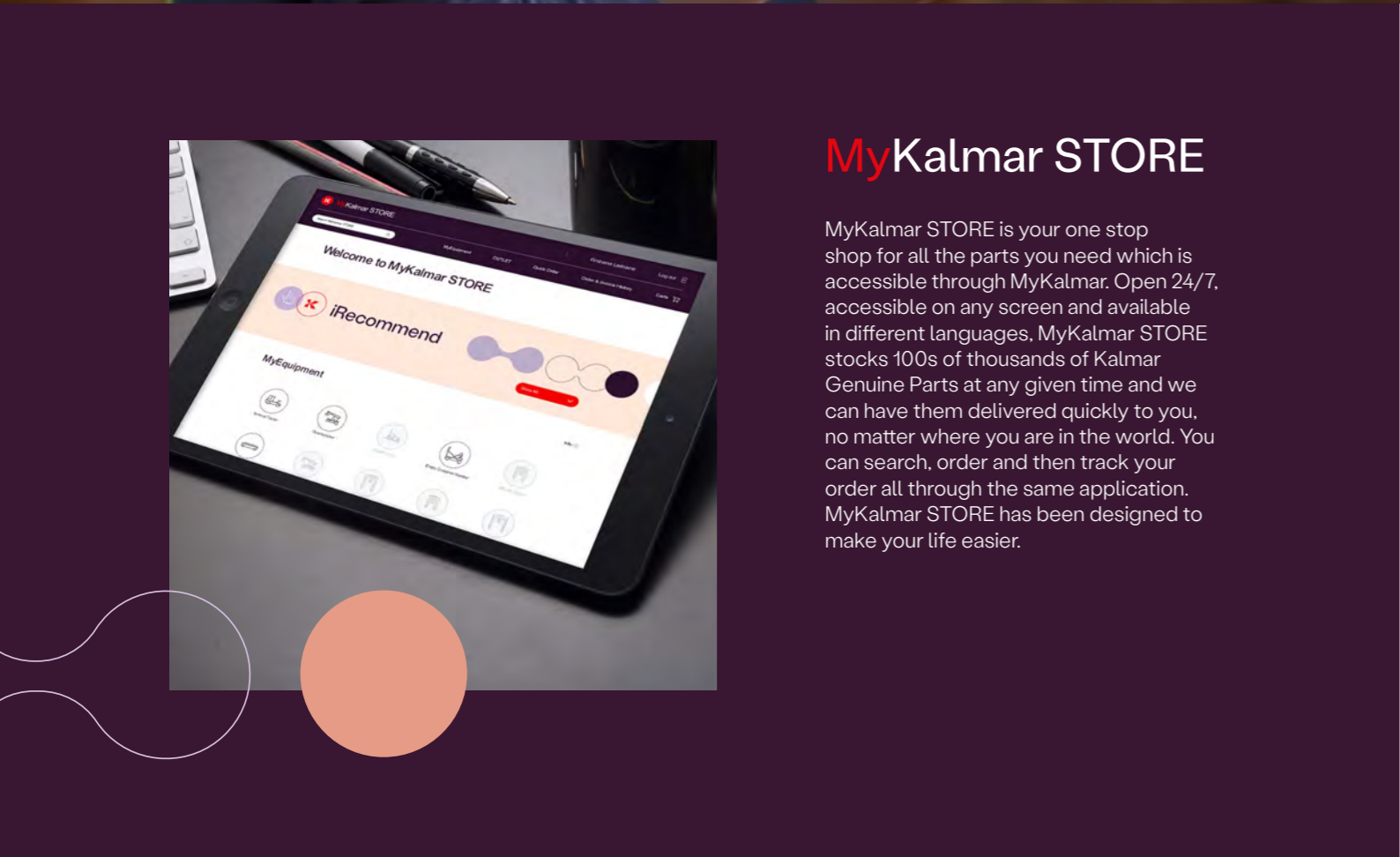
## MyKalmar INSIGHT

**Optimise your operations with Insight.**  
MyKalmar INSIGHT\* is a performance management tool for cargo handling, which gives you an easy to use overview of your fleet operations, by aggregating data from multiple sources, including equipment built by other manufacturers. Review your entire fleet activities, schedule maintenance activities and order the required parts

automatically. All enabling you to take action on real-time information, that will help improve your overall operations immediately. MyKalmar INSIGHT comes fitted and ready to be activated in all new Kalmar equipment, it can also be retrofitted into existing Kalmar equipment or those built by other manufacturers.



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

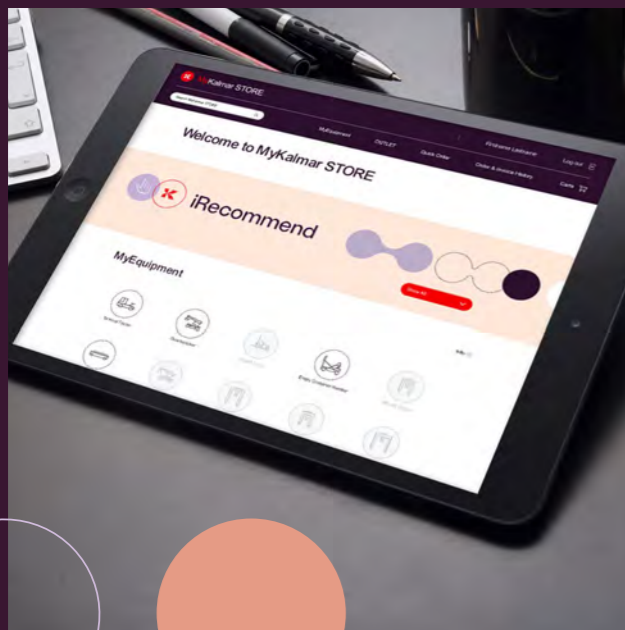


## MyKalmar STORE

MyKalmar STORE is your one stop shop for all the parts you need which is accessible through MyKalmar. Open 24/7, accessible on any screen and available in different languages, MyKalmar STORE stocks 100s of thousands of Kalmar Genuine Parts at any given time and we can have them delivered quickly to you, no matter where you are in the world. You can search, order and then track your order all through the same application. MyKalmar STORE has been designed to make your life easier.

## Kalmar Training

**Enhance your skills.**  
To get the most out of your new machine our training centre offers a range of courses for both your technicians and operators. Operators can be taught how to drive the machine for optimum performance and minimum waste, and to learn what needs to be checked daily for optimal safety. Technicians can be educated with the knowledge they need to keep your new equipment in top condition in a safe way. Courses are a mix of theory and hands-on experience.



# Standard

## Kalmar DCG80-110

Kalmar DCG80-110, E4-E8 // Empty Container Handlers // 8 - 11 tonnes (EU3 / Tier 3, EU4 / Tier 4 or EU5)

### Norms, standards and regulations according to:

- Machinery Directive 2006/42/EC
- Safety Industrial Trucks ISO 3691-1 & EN 16307-1
- Safety Low & High Lift Trucks ANSI/ITSDF B56.1
- Stability of EC-Handlers ISO 22915-9
- CE-marking for trucks within EU/EEA
- ANSI/ITSDF-marking for North America trucks

### Chassis

- Strong, durable heavy-duty EC-Handler chassis
- High and rear mounted heavy-duty tilt cylinders
- LHS access stairway, with steps and a wide platform
- Low cabin mounting (LCM) at the rear of the truck
- Very good rear end visibility of the truck
- Chassis with full access to the drive line
- Easy-to-open drive line cover plates (low noise)
- Lifting eyes and anchor points (front & rear)
- Towing pin (rear - incasted)

### Body

- Steps with anti-slip protection
- 2x Rear view mirrors - rear on front mudguards
- Strong and protective mudguards (front & rear)
- Noise insulation kit for the complete truck

### Steer Axle (rear)

- Kalmar steer axle mounted dual pivot bearings
- Wide track axle with mechanical stops (±3 deg)
- El-servo power steering with double acting cylinder
- Steer axle with narrow turning radius

### Drive Axle (front)

- Kessler planetary axle with differential drive
- Wide track axle for high side stability
- Oil-cooled Wet Disc Brakes (WDB)
- High pressure filter (10 my) for the brakes
- DCG80ES44-87: D81-ND, width 4,0 m.
- DCG90ES44-87: D81-ND, width 4,1 m.
- DCG100ES44-87: D91-ND, width 4,1 m.
- DCG10ES44-87: D91-ND, width 4,1 m.
- DCG100ED44-65: D91-ND, width 4,1 m.
- DCG10ED44-65: D91-ND, width 4,1 m.
- DCG100ED76-87: D91-HD, width 4,6 m.
- DCG10ED76-87: D91-HD, width 4,6 m.

### Wheels (Tyres & Rims)

- DCG80: Tyres 12.00x24" (4+2)
- DCG90-110: Tyres 14.00x24" (4+2)

### Drivetrain

- Volvo and Cummins diesel engines 6 cylinder
- Emission approval EU3 / Tier 3, or EU5
- High power & torque with low fuel consumption
- Engine with preheater, monitoring and protection system
- Fully automatic transmission DANA TE-14000
- Transmission monitoring and reverse protection
- Declutch function activated by the brake pressure
- Strong radiators for engine, transmission & brakes
- Muffler and exhaust pipe in stainless steel

### Load-Sensing Hydraulics

- Load-sensing variable piston pumps (2x)
- Power-on-demand with high lift & lowering speeds
- Pumps for mast, spreader, brakes & steering
- Vane pumps for brake pressure & oil cooling (2x)
- Return filters for the work hydraulics (2x/10 my)
- Servo filter for the work hydraulics (10 my)
- Pressure filter for hydraulics / brakes (10 my)
- Power steering, power brakes & ORFS-couplings
- Diesel tank 460 litre (Usable volume) incl. breather filter

### Lift Mast

- Mast design for up to 8-high single & double stacking
- Duplex 2-stage mast with high mounted tilt cylinder
- Strong, durable lift mast, 1 pair of cylinders & chains
- Heavy-duty mast profiles and strong cross members
- Mast with strong mast wheels, bearings & guide pads
- Large diameter shafts / bearing for mast / tilt fixations
- Only 2 oil hoses + 1 electrical cable over the mast
- Mast tilt angles +3 / -3 deg (FW / BW)
- Mechanical tilt indicator on tilt cylinder
- Transport position striping (on lift mast)

### Lift Carriage

- Carriage with strong wheels, bearings & guide pads
- Large sideshift of ±600 mm (total stroke 1200 mm)
- Mechanical Pile Slope by gravity (MPS) 250 mm
- The carriage is connected by the 2 lift chains

### Attachment (DCG80-100 Single Stacker)

- Side lift with hydraulic extension 20'-40'
- 2 fixed twistlocks with indication lamps
- Large sideshift of ±600 mm (total stroke 1200 mm)
- Spring loaded floating vertical heads (0-250 mm)
- Safety locking, alignment pins & sensors (2x)
- Lowering interrupt sensors for safe handling

### Attachment (DCG100-110 Double Stacker)

- Side lift with hydraulic extension 20'-40'
- The 2 lift hooks connects the bottom container (l)
- The 2 side clamps connect upper & bottom containers
- 20'-40' containers are locked by the side clamps
- Indication lamps for alignment / locked container (l+ll)
- Large sideshift of ±600 mm (total stroke 1200 mm)
- Spring loaded floating vertical heads (0-250 mm)
- Safety locking, alignment pins & sensors (4x)
- Lowering interrupt sensors for safe handling

### Electronic System

- OLS1, Over Loading System, monitoring lift with speed limit (pop-up)
- Electronic weight scale in main display
- Speed limit outside drive position (ED)
- Dynamic speed limits on 2 load levels (ED)
- Speed limit outside drive position (ES)
- Tilt speed limitation over defined height

### Electrical System 24V

- Battery box 2x12V & main power switch
- Electric service box on chassis (LHS)
- 2 working LED-lights on spreader
- 2 working LED-lights on spreader on end beams
- 2 working LED-lights on mast
- 2 working LED-lights front on fenders (head beam)
- 2 working LED-lights rear below cabin (in reverse)
- 2 position LED-lights on each side of the truck
- 2 tail / brake LED-lights rear in counter weight
- 4 blinker LED-lights (front - rear / left - right)
- 2 flashing LED-brake lights (when reversing)
- 1 rotating warning LED-beacon
- Buzzer when reversing (reverse alarm)

### Cabin (EGO)

#### Structure

- Spacious, modern cabin with good ergonomy level
- Large windows, good visibility, in all directions
- Instep handle (left side)
- Sliding window on both sides
- Doors with air damper and key lock (L + R)
- Tinted laminated windows

#### Comfort

- Seat Kalmar, mech. spring, high back
- Adjustable armrest (RHS) & 2-point safety belt
- Inside rear view mirror (right side)
- Interior lights with fade away function
- Fully adjustable steering wheel incl tilt function
- Fully adjustable colour display
- Electric adjustable operational console with joystick, operational buttons & armrest (RHS)
- Power steering wheel with steer knob
- Electric horn
- LED background light for buttons & switches

#### Controls

- Electronic lift levers for mast & spreader functions
- Button for forward-neutral-reverse on 1st lift lever
- Auto rev-up accelerator at lifting / tilting / spreader
- Electric accelerator pedal
- Double brake pedals (L + R)
- Gear lever with electronic hand brake (on/off)
- Automatic gear shifting (P1)
- Multi-function lever LHS (parking brake and gear/ direction switch)
- Combined horn and blinker lever
- Warning - hand brake (on/off) leaving seat
- Hour meter

### Climate

- ECH, electronic controlled heating/ventilation
- Fresh air and recirculation filter
- Wipers/washers on front, rear and roof windows
- Interval wiper functions on front, rear and roof
- Tinted windows

### Information systems

- CECS 2.0 Kalmar intelligent control system
- HMI based on TFT-display 4,3" (109 mm)
- Colour display DM430E (automatic fault analysis)
- Menu control with toggle wheel & push buttons

### ECO Drive Modes (EDM):

- Power mode
- Normal mode (default setting)
- Economy mode

### Operator menu:

- System voltage
- Actual gear
- Engine rpm
- Travelling speed (km/h or m/h)
- Combined hydraulic and brake oil temperature
- Transmission oil temperature
- Engine oil pressure (Volvo)
- Engine oil pressure only (Cummins)
- Engine coolant temperature
- Clock and date
- Operating time (hours)
- Service time indicator (hours)
- Electronic weight scale functions
- Status of heating system & AC system
- Fuel level (diesel and optional AdBlue)
- Est. operating time before empty tank (hour/min)
- Service indicator
- Container counter with reset function
- Trip computer / statistics

### Head-Up display for twistlock indication:

- LED indicators for alignment & container(s)

### Various warning lights & signals:

- Charging battery
- Low brake pressure
- Failure indicator
- High engine coolant temperature
- Low engine coolant level (not on Cummins)
- Low engine oil pressure
- Preheating engine
- Transmission oil temperature
- Low fuel level. (incl AdBlue)
- Hydraulic and brake oil temperature
- Low washer fluid level

### Indicator lamps:

- Head beam
- Direction indication
- Parking brake

### Fleet Management

- Equipped with telemetric hardware for MyKalmar INSIGHT

### Colour

- Cabin: Iron-Grey RAL 7011
- Chassis, tanks & mudguards: Red RAL 3000
- Boom, attachment & axles: Black RAL9006
- Rims: Iron-Grey RAL 7011

### Documentation and Decals

- Load chart diagram inside cabin
- Machine data sign on chassis incl. load chart
- Warning, tyre pressure & oil pressure stickers
- Information & levers/joystick stickers
- Fuse diagram
- Instruction manual
- Maintenance manual
- Spare parts catalogue

### Warranty

- 12 months / 2000 hours



# Optional

## Kalmar DCG80-110

Kalmar DCG80-110, E4-E8 // Empty Container Handlers // 8 - 11 tonnes (EU3 / Tier 3, EU4 / Tier 4 or EU5)

### Chassis

#### Chassis - ES Empty Single Stacker

- DCG 80-45 ES (L3=4550 mm)
- DCG 90-45 ES (L3=4550 mm)
- DCG 100-45 ES (L3=4550 mm)

#### Chassis - ED Empty Double Stacker

- DCG 100-45 ED (L3=4550 mm)
- DCG 110-45 ED (L3=4550 mm)

### Lift Mast

- Duplex E4 (4-high 8'6" / 4-high 9'6")
- Duplex E5 (5-high 8'6" / 5-high 9'6")
- Duplex E6 (6-high 8'6" / 5-high 9'6")
- Duplex E7 (7-high 8'6" / 6-high 9'6")
- Duplex E8 (8-high 8'6" / 7-high 9'6")
- Triplex E6 (6 of 8'6" / 5 of 9'6") max 10 T
- Triplex E7 (7 of 8'6" / 6 of 9'6") max 10 T
- Heavy Duty Double stacking - Duplex E6 (6-high 8'6" / 5-high 9'6")
- Heavy Duty Double stacking - Duplex E7 (7-high 8'6" / 6-high 9'6")
- Heavy Duty Double stacking Duplex E8 (8-high 8'6" / 7-high 9'6")
- Container checker device in carriage

### Cabin

#### Structure

- Low mounted cabin (LCM) with dual access stairways & upper platforms
- High mounted cabin (HCM), +600 mm, improved visibility, dual access stairways & upper platforms
- Hydraulic tilting cabin (stroke 10 degrees)
- Globetrotter cabin, +200 mm, ledge mount windows
- Safety cage to protect cabin from falling cargo

#### Comfort

- Various seat alternatives
- Head rest for the seat
- Armrest with adjustment (LHS)
- Horizontal dampening/suspension of seat
- Extra trainer seat incl 2-p safety belt (LHS)
- Bracket for terminal and monitor (RHS)
- Writing pad, A4 paper box and reading lamp (RHS)
- Extra rear view mirror (inside cabin / left side)
- Seat Belt interlock

#### Controls

- Only second gear activated (P3)
- Safety override for hydraulic functions (by code)
- Otto Joystick - Universal Grip with OPS / without OPS

#### Climate

- Electronic Climate Control (ECC)
- Microfilter in additional to std filter
- AC/ECC switched off when door is open
- Sun visor front window (black net)
- Sun visor roof window (black net)
- Sun visor rear window (black net)
- Sun visor roof window (reflective film)
- Extra cabin heater (incl. 1 x 220V outlet)
- Postheating

### Drivetrains

#### Medium Performance (MP)

- DANA TE-14300 (3+3 gears) for all MP drive lines
- Cummins QSB-6.7-C220 (EU3 / Tier 3, 16.4 kW, 949 Nm, 6.70 l, 6-cyl)
- Volvo TAD-850-VE (EU3 / Tier 3, 16.0 kW, 1060 Nm, 7.70 l, 6-cyl)

#### High Performance (HP)

- DANA LTE-14400 (4+4 gears + Lock-Up) for all HP drive lines
- Volvo TAD-851-VE (EU3 / Tier 3, 18.5 kW, 1160 Nm, 7.70 l, 6-cyl)
- Volvo TAD-881-VE (EU5, 18.5 kW, 1160 Nm, 7.70 l, 6-cyl)
- Auto engine & ignition stop, after 5 min idle
- Air intake filter, with Pre-Cleaner, raised air intake
- Start/stop function (for Volvo engine only)
- Stronger/wider drive axle, Kessler D91, 4.500 mm

### Hydraulics

- Hydraulic mast accumulator (shock dampening)
- Mast tilt angles +3 / -6 deg (FW / BW)
- Mast tilt angles +2 / -3 deg (FW / BW)
- Hydraulic longlife fine filter with by-pass (3 my)
- Block valve mounted on lift cylinders

### Body

- Anti slip protection on fenders and tanks
- Mud flaps in steel + rubber (front)
- Mud flaps in rubber (rear)
- Noise insulation kit for complete truck (1-3 dB)

### Electronic System and Settings

- OLS3, Over Loading System, cut lift with speed limit (pop-up)
- Lift height limitation
- Lift height warning over defined height (specify height)
- Speed limitation (specify speed)
- Speed limit over defined lift height (specify height)
- Speed limitation when driving with two containers
- Dynamic speed limit depending of lift height
- Dynamic speed limit on 2 load levels (ES)
- Backward safety green light

### Electrical System 24V

- 2 extra working LED-lights on mudguard
- 4 extra working LED-lights on mudguard
- 2 extra working LED-lights on cabin roof
- 4 extra working LED-lights on cabin roof
- 6 extra working LED-lights on cabin roof
- 2 extra working LED-lights on mast
- 2 extra working LED-lights on carriage
- 4 extra working LED-lights on carriage
- 2 extra reverse LED-lights on cabin suspesion
- 1 extra warning LED-beacon the top of the mast
- Blue safety light backwards via reverse gear
- 1 extra entrance LED-lights on left stairway + button
- 2 el. heated mirrors on front mudguards (std pos.)
- 2 el. heated & adjustable mirrors on light bracket of front fender
- Radio with MP3, Bluetooth, speakers (24V)
- DAB-Radio with CD, MP3, Bluetooth, speakers (24V)
- 2 x 24V sockets and 1 x 12V socket in cabin
- 2 x 5V / USB sockets in cabin
- Electric air pressure horn
- External emergency switches 2pcs with engine cut off

### Lift Carriage

- Automatic extension 20'-30'-40' stop
- Soft landing by inductive sensor (on twistlocks only)
- Hydraulic Pile Slope by cylinders (HPS ±5 deg), the MPS with 0-250 mm end beam levelling is included
- All trucks has full lifting capacity with MPS & HPS
- Available for both single and double stackers

### Attachment (Single Stacker)

- Twistlock spreader for wide body (TWL-WTP)
- Spreader standard (8') / wide body (WTP - 8.5') container
- Hydraulic moveable twistlocks (stroke 76 mm/3")

### Attachment (Double Stacker)

#### Twin TWL - double spreader

- Lift heads with double twist locks on each side
- Active safety locking at 20'-40' for all container lengths
- Std. ISO container and Tank container versions

#### Hook, clamp & safety wedge double spreader

- Lift heads with lift hook and hydraulic side clamp
- Hydraulic safety wedge for bottom container lock
- Active safety locking of 45'-53' single containers
- 45'-53' containers are locked by safety wedge (SW)

### Steer Axle (rear)

- Wheel nut protection on steer tires
- Steer cylinder spacer

### Wheels

- Spare wheel & rim 12.00×24" of various brands
- Spare wheel & rim 14.00×24" of various brands

### Additional equipment

- Reverse camera with 7" single view monitor
- Reverse camera with 7" split view monitor
- Reverse camera with 10" split view monitor
- Spreader cameras (2x) connected to display in cabin
- Radar sensors for object detection rearward
- DVR recorder, up to 4 channels, with SD-card (128 GB)
- 360° camera system with Pedestrian detection & DVR
- Tyre pressure monitoring system (Bluetooth)
- Diesel powered cabin heater 5 kW
- Alcolock Draeger in cabin
- Semi-automatic fire suppression system (DAFO)
- Fire extinguisher 5-6 kg, powder
- Lockable fuel cap
- Cabin heater incl 220V outlet
- Engine heater incl cab heater
- Engine/hydraulic oil heater incl cab heater
- Central greasing base machine
- Central greasing spreader
- Chain greaser with replaceable cartridge
- MyKalmar INSIGHT solutions
- Tool kit or filter kit 2000 hrs
- Soft landing function with ultrasonic sensor (only for single stacking spreader)

### Fleet Management

- MyKalmar INSIGHT licence (only in certified countries)
- MyKalmar INSIGHT Driver Monitor (RFID reader + 10 unique driver tags)
- MyKalmar INSIGHT extra monitoring tags

### Colour (specify RAL number)

- Other colour than standard - on chassis
- Other colour than standard - on cabin
- Other colour than standard - on rims
- Reinforced anti-corrosion protection (extra primer)

### Training

- Contact Kalmar Training Centre for training programs

# Specifications

			DCG80-45ES					DCG90-45ES					DCG100-45ES				
			ES4/4	ES5/5	ES6/5	ES7/6	ES8/7	ES4/4	ES5/5	ES6/5	ES7/6	ES8/7	ES4/4	ES5/5	ES6/5	ES7/6	ES8/7
MODELS LIFTING CAPACITY	<b>Stacking model and height</b>		Single stackers														
	Type of handling		Single stackers														
	Lifting capacity, with MPS or with HPS <sup>1</sup> , rated	Q1 kg	8000	8000	8000	8000	8000	9000	9000	9000	9000	9000	10 000	10 000	10 000	10 000	10 000
Stacking height, no. of containers (8'6" / 9'6")			4 - 4	5 - 5	6 - 5	7 - 6	8 - 7	4 - 4	5 - 5	6 - 5	7 - 6	8 - 7	4 - 4	5 - 5	6 - 5	7 - 6	8 - 7
MAIN DATA	Spreader locking type, standard / optional		Twistlocks   Twistlocks + WTP (76 mm)														
	Spreader type, extension stops, sensors		Sidelift, 20' + 40' stops, alignment & interrupt sensors														
	Wheelbase	L3 mm	4550														
	Load centre, front of tyres, with MPS or HPS (20ft / 40ft) <sup>2</sup>	L2 mm	1210 / 1260														
Lost load centre, to front face of tyres		X mm	700														
DIMENSIONS	Truck length with spreader, MPS / HPS		L mm	6900   6950													
	Truck width drive axle, standard   optional		B	4050 (12.00x24")   4100 (14.00x24")													
	Height cabin roof, standard   optional		H6 mm	3940   4540													
	Seat height EGO/ High Seat, standard (LB)   optional (HB) <sup>3</sup>		H8 mm	2800   3400													
	Turning radius, inner / outer 20ft / outer 40ft (mm)		R1-R2-R3 mm	6750 / 1150 / 9250													
	Min. aisle width for 90° stacking, 20ft container - 40ft container (mm)		A1-A2 mm	10600 / 14200													
	Ground clearance, min		G mm	250													
Spreader levelling, MPS / HPS, standard   optional		(mm/deg)	0 - 250   HPS: ± 5 (incl MPS)														
LIFTING EQUIPMENT	Lift mast, type, stage, cylinders and chains		Duplex / 2-stage / 2 cylinders / 2 lift chains														
	Lifting height	H4 mm	12240	15240	16240	18740	21240	12300	15300	16300	18800	21300	12300	15300	16300	18800	21300
	Mast height, min	H3 mm	7040	8540	9040	10290	11540	7100	8600	9100	10350	11600	7100	8600	9100	10350	11600
	Mast height, max	H5 mm	12040	15040	16040	18540	21040	12100	15100	16100	18600	21100	12100	15100	16100	18600	21100
	Height under hooks (mm)	H10 mm	2240	2300													
	Mast tilt, forward – backward, standard   optional		a – B °	3-3   3-6 or 2-3													
	Spreader width, twistlocks / hooks, (min - max)		Va - Vb mm	6085 - 12220													
	Spreader sideshift, stroke both directions (total)		V1 mm	± 600 (1200)													
WEIGHTS	<b>Service weight</b>	with MPS or HPS <sup>2</sup> kg	33300/34400	34700/35800	35300/36400	36800/37900	38300/39400	35300/36400	36700/37800	37300/38400	38800/39900	40300/41400	38000/39100	39400/40500	40000/41100	41500/42600	43600/44700
	<b>Axle load front</b>	front unloaded - rated load MPS kg	20900/33100	22400/34700	23100/35300	24700/37000	26400/38600	21400/35200	22900/36700	23600/37400	25200/39000	26900/40700	22300/37700	23800/39200	24500/39900	26200/41500	27800/43200
		front unloaded - rated load HPS <sup>2</sup> kg	22200/34500	23700/36000	24400/36700	26100/38400	27700/40000	22700/36600	24200/38100	24900/38800	26500/40300	28200/42000	23600/39100	25100/40600	25800/41200	27500/42900	29100/44500
	<b>Axle load rear</b>	rear unloaded - rated load MPS kg	12400/8100	12300/8000	12200/7900	12100/7800	11900/7600	13900/9100	13800/9000	13700/8900	13600/8800	13400/8600	15700/10400	15600/10200	15500/10200	15400/10000	15800/10500
rear unloaded - rated load HPS <sup>2</sup> kg		12200/7800	12100/7700	12000/7600	11800/7500	11700/7300	13700/8800	13600/8700	13500/8600	13400/8600	13200/8400	15500/10000	15400/9900	15300/9900	15100/9700	15600/10200	
WHEELS	<b>Wheels</b>	Number of wheels, front – rear (x = driven)	4 – 2														
	<b>Tyres</b>	Pneumatics, type / pressure (front - rear)	Pneumatic / Diagonal / E4														
		Dimensions, front – rear, standard   oprional	inch	12.00x24"-12.00x24"   14.00x24"-14.00x24"													
	<b>Rims</b>	Dimensions, front – rear	inch	8.50x24" - 8.50x24"													
Track (c-c), front / rear		S1 / S2 mm	3270 / 2400														
AXLES	<b>Steer axle</b>	Type, design, function	Electro-hydraulic servo - steering wheel with orbitrol														
	<b>Drive axle</b>	Manufacturer, type - designation <sup>5</sup>	Kessler D81- Differential and hub reduction (Normal duty)														
	<b>Service brakes</b>	Type – affected wheels	Wet disc brakes - Drive wheel														
	<b>Parking brake</b>	Type – affected wheels	Spring brake - Drive wheel														
HYDRAULICS	Hydraulic system, type		Load-sensing (power-on-demand) / working & brake oil tank														
	Tank volumes, diesel - AdBlue <sup>4</sup> - oil tank		Lit	460 / 35 / 380													
	Overload System with warning OLS1 + OLS3			Standard: OLS1 (lift monitor) / Optional: OLS3 (lift cut-off + tilt monitor)													

Notes:

- MPS = Full lifting capacity with MPS (8-9-10-11 tons).  
HPS = Full lifting capacity with HPS incl MPS (8-9-10-11 tons).  
Except DCG110-45ED87, 10 tons at 8/7-high.
- MPS = Mechanical Pile Slope in end beams - by gravity.  
HPS = Hydraulic Pile Slope by 2 cylinders incl. MPS.
- LB = Low built cabin. HB = High built cabin

- On EU3 (EPA T3) engines there is no AdBlue/DEF package included.  
The volumes included are based on usable volume.  
On EU4 (EPA T4F) engines AdBlue/DEF package is included.  
On EU5 (EPA T4F) engines AdBlue/DEF and DPF Filter package is included.
- Drive axle configurations vary by stacking type. Kessler D81 - 4000mm, Kessler D81 (Heavy duty) - 4100mm, Kessler D91- 4500mm.

# Specifications

			DCG100-45ED					DCG110-45ED					
			ED4/4	ED5/5	ED6/5	ED7/6	ED8/7	ED4/4	ED5/5	ED6/5	ED7/6	ED8/7	
MODELS LIFTING CAPACITY	<b>Stacking model and height</b>		Double stackers										
	Type of handling		Double stackers										
	Lifting capacity with MPS or with HPS <sup>1</sup> , rated	Q1 kg	10 000	10 000	10 000	10 000	10 000	11 000	11 000	11 000	11 000	11 000	
Stacking height, no. of containers (8'6" / 9'6")			4+1 - 4+1	5+1 - 5+1	6+1 - 5+1	7+1 - 6+1	8+1 - 7+1	4+1 - 4+1	5+1 - 5+1	6+1 - 5+1	7+1 - 6+1	8+1 - 7+1	
MAIN DATA	Spreader locking type, standard / optional		Hooks + Clamps   Safety Wedge   Double Twistlocks										
	Spreader type, extension stops, sensors		Sidelift, 20' + 40' stops, alignment & interrupt sensors										
	Wheelbase	L3 mm	4550					4550					
	Load centre, front of tyres, with MPS or HPS (20ft / 40ft) <sup>2</sup>	L2 mm	1210 / 1280					1210 / 1280					
Lost load centre, to front face of tyres		X mm	700					700					
DIMENSIONS	Truck length with spreader, MPS / HPS		L mm					6900   6950					
	Truck width drive axle, standard   optional		B mm					4600   4100					
	Height cabin roof, standard   optional		H6 mm					4000   4600					
	Seat height EGO/ High Seat, standard (LB)   optional (HB) <sup>3</sup>		H8 mm					2860   3460					
	Turning radius, inner / outer 20ft / outer 40ft (mm)		R1-R2-R3 mm					7000 / 1250 / 9600					
	Min. aisle width for 90° stacking, 20ft container - 40ft container (mm)		A1-A2 mm					10850 - 14350					
	Ground clearance, min		G mm					300					
Spreader levelling, MPS / HPS, standard   optional			(mm/deg)					0 - 250   HPS: ± 5 (incl MPS)					
LIFTING EQUIPMENT	Lift mast, type, stage, cylinders and chains		Duplex / 2-stage / 2 cylinders / 2 lift chains										
	Lifting height	H4 mm	12300	15300	16300	18800	21300	12300	15300	16300	18800	21300	
	Mast height, min	H3 mm	7100	8600	9100	10350	11600	7100	8600	9100	10350	11600	
	Mast height, max	H5 mm	12100	15100	16100	18600	21100	12100	15100	16100	18600	21100	
	Height under hooks (mm)	H10 mm	2240	2300				2240	2300				
	Mast tilt, forward – backward, standard   optional	a – B °	3-3   3-6 or 2-3					3-6   2-3					
	Spreader width, twistlocks / hooks, (min - max)		Va - Vb mm	6615 - 12750					6615 - 12750				
	Spreader sideshift, stroke both directions (total)		V1 mm	±600					±600				
WEIGHTS	Service weight with MPS or HPS <sup>2</sup>		kg	38400/39500	39800/40900	40400/41500	41900/43000	44000/45100	40100/41200	41500/42600	42100/43200	43600/44700	45100/46200
	Axle load front front unloaded - rated load MPS		kg	22800/38100	24300/39700	25000/40300	26600/42000	28300/43800	22700/39600	24200/41100	24900/41800	26500/43400	28200/45100
	front unloaded - rated load HPS <sup>2</sup>		kg	24100/39500	25600/41100	26300/41800	27900/43400	29600/45100	24000/41000	25500/42500	26200/43200	27900/44800	29500/46500
	Axle load rear rear unloaded - rated load MPS		kg	15600/10300	15500/10100	15400/10100	15300/9900	15700/10300	17400/11500	17300/11400	17200/11300	17100/11200	16900/11100
	rear unloaded - rated load HPS <sup>2</sup>		kg	15400/10000	15300/9800	15200/9700	15100/9600	15500/10000	17200/11200	17100/11100	17000/11000	16800/10900	16700/10700
WHEELS	Wheels Number of wheels, front – rear (x = driven)		4 – 2					4 – 2					
	Tyres Pneumatics, type / pressure (front - rear)		Pneumatic / Diagonal / E4					Pneumatic / Diagonal / E4					
	Dimensions, front – rear, standard   optional		inch					14.00x24" - 14.00x24"					
	Rims Dimensions, front – rear		inch					10.00x24 - 10.00x24					
Track (c-c), front / rear		S1 / S2 mm	3280 / 2400					3280 / 2400 3780 / 2400					
AXLES	Steer axle Type, design, function		Electro-hydraulic servo - steering wheel with orbitrol										
	Drive axle Manufacturer, type - designation <sup>5</sup>		Kessler D81- Differential and hub reduction (Normal duty)					Kessler D91- Differential and hub reduction (Heavy duty)					
	Service brakes Type – affected wheels		Wet disc brakes - Drive wheel										
	Parking brake Type – affected wheels		Spring brake - Drive wheel										
HYDRAULICS	Hydraulic system, type		Load-sensing (power-on-demand) / working & brake oil tank										
	Tank volumes, diesel - AdBlue <sup>4</sup> - oil tank		Lit					460 / 35 / 380					
	Overload System with warning OLS1 + OLS3		Standard: OLS1 (lift monitor) / Optional: OLS3 (lift cut-off + tilt monitor)										

Notes:

- MPS = Full lifting capacity with MPS (8-9-10-11 tons). HPS = Full lifting capacity with HPS incl MPS (8-9-10-11 tons). Except DCG110-45ED87, 10 tons at 8/7-high.
- MPS = Mechanical Pile Slope in end beams - by gravity. HPS = Hydraulic Pile Slope by 2 cylinders incl. MPS.
- LB = Low built cabin. HB = High built cabin

- On EU3 (EPA T3) engines there is no AdBlue/DEF package included. The volumes included are based on usable volume. On EU4 (EPA T4F) engines AdBlue/DEF package is included. On EU5 (EPA T4F) engines AdBlue/DEF and DPF Filter package is included.
- Drive axle configurations vary by stacking type. Kessler D81 - 4000mm, Kessler D81 (Heavy duty) - 4100mm, Kessler D91 - 4500mm.

Note: Information is subject to change



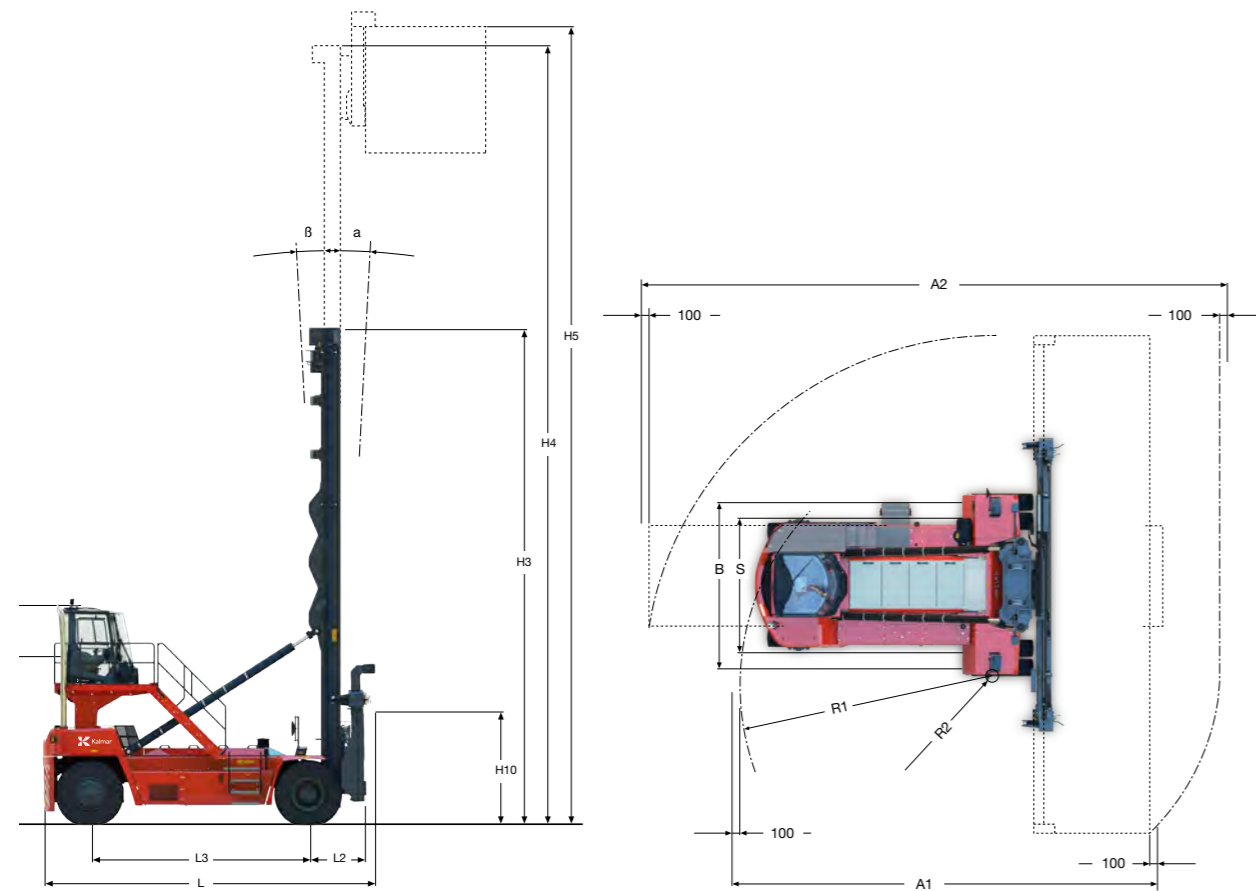
# Performance

MODELS				DCG80-45ES					DCG90-45ES					DCG100-45ES							
				ES4/4	ES5/5	ES6/5	ES7/6	ES8/7	ES4/4	ES5/5	ES6/5	ES7/6	ES8/7	ES4/4	ES5/5	ES6/5	ES7/6	ES8/7			
SPEEDS	Travel speed, forward - reverse	Unloaded	km/h	26 - 26	27 - 26	28 - 26	29 - 26	30 - 26	26 - 26	27 - 26	28 - 26	29 - 26	30 - 26	26 - 26	27 - 26	28 - 26	29 - 26	30 - 26			
		At rated load	km/h	19 -19	20 -19	21-19	22 -19	23 -19	19 -19	20 -19	21-19	22 -19	23 -19	19 -19	20 -19	21-19	22 -19	23 -19			
	Lifting speed	Unloaded	m/s	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6			
		At 70 % of rated load	m/s	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6			
	Lowering speed	Unloaded	m/s	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55			
At rated load		m/s	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58				
POWER	Gradeability, boost function (max)	Unloaded	%	39					35					35							
		At rated load	%	31					28					28							
	Gradeability, 1-5km/h (Cont)	Unloaded	%	36					32					32							
		At rated load	%	28					25					25							
SOUND	Noise level, inside	LpAZ	dB(A)			62 - 70					62 - 70					62 - 70					
	Noise level, outside (EDM's)	LWAZ	dB(A)			101 - 108					101 - 108					101 - 108					
DRIVETRAIN	Engine type, design			Diesel / 4-stroke / turbo / intercooler																	
	Drivetrain - performance levels			HP High Performance																	
	Engine, power / torque, (min - max)			(kW/Nm)			185 / 1160					185 / 1160					185 / 1160				
	Fuel consumption, average diesel / AdBlue			(L/h-%)			5 - 15 / 1 - 5					5 - 15 / 1 - 5					5 - 15 / 1 - 5				
	Transmission, gears forward / reverse			4 + 4 with Lock-Up																	
	Transmission type, function, safetyction, safety			Automatic powershift / reverse protection																	
MODELS				DCG100-45ED					DCG110-45ED												
				ES4/4	ED5/5	ED6/5	ED7/6	ED8/7	ES4/4	ED5/5	ED6/5	ED7/6	ED8/7								
SPEEDS	Travel speed, forward - reverse	Unloaded	km/h	26 - 26	27 - 26	28 - 26	29 - 26	30 - 26	26 - 26	27 - 26	28 - 26	29 - 26	30 - 26								
		At rated load	km/h	19 -19	20 -19	21-19	22 -19	23 -19	19 -19	20 -19	21-19	22 -19	23 -19								
	Lifting speed	Unloaded	m/s	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6								
		At 70 % of rated load	m/s	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6								
	Lowering speed	Unloaded	m/s	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55								
At rated load		m/s	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58									
POWER	Gradeability, boost function (max)	Unloaded	%	35					35												
		At rated load	%	28					28												
	Gradeability, 1-5km/h (Cont)	Unloaded	%	32					32												
		At rated load	%	25					25												
SOUND	Noise level, inside	LpAZ	dB(A)			62 - 70					62 - 70										
	Noise level, outside (EDM's)	LWAZ	dB(A)			101 - 108					101 - 108										
DRIVETRAIN	Engine type, design			Diesel / 4-stroke / turbo / intercooler																	
	Drivetrain - performance levels			HP High Performance																	
	Engine, power / torque, (min - max)			(kW/Nm)			185 / 1160					185 / 1160									
	Fuel consumption, average diesel / AdBlue			(L/h-%)			5 - 15 / 1 - 5					5 - 15 / 1 - 5									
	Transmission, gears forward / reverse			4 + 4 with Lock-Up																	
	Transmission type, function, safetyction, safety			Automatic powershift / reverse protection																	

Notes:  
1) Data is preliminary and is subject to change.

# Drivelines

Engine emission approvals	MP Medium Performance (only for DCU)		HP High Performance	
	EU3 / Tier 3		EU3 / Tier 3	EU5
Engine emission brand/series	Cummins QSB		Volvo / D8	
Engine model	QSB-6.7-C220		TAD-85I-VE	TAD-881-VE
Engine after treatment type	No SCR / no AdBlue		No SCR / no AdBlue	With SCR / with AdBlue
	No particle filter		No particle filter	With particle filter
Engine displacement (dm <sup>3</sup> )	6700		7700	
Max power @ engine speed (kW / rpm)	172(168) / 2000 (2100)		185/1600-1900	
Max torque @ engine speed (Nm / rpm)	949 / 1500		1160 / 1100-1500	
Max engine speed (rpm)	2100		1800	
Fuel consumption – average diesel (l/h)	5 - 15		5 - 15	
Fuel consumption – average AdBlue (%)	-		-	37
Transmission model (gears FWD + RVS)	Dana - FTE14310		Dana - FLTE14456	
Transmission gear shift type	Automatic powershift		Automatic powershift	
Transmission clutch type	Torque converter		Torque converter with Lock-Up	
Drive axle brand / series	Kessler / D81 - D91 (WDB)		Kessler / D81 - D91 (WDB)	
Service brake / cooling	Wet Disc Brakes with oil cooling		Wet Disc Brakes with oil cooling	
Service brake / cooling	Kalmar / single cylinder / extra wide		Kalmar / single cylinder / extra wide	
Alternator, power (W, V * A)	AC - 1960 (28/70)		AC - 3640 (28/130)	



Note: Information is subject to change





MSKU 233 462 D  
22G1

MAERSK SEALAND



MAERSK SEALAND

GROSS WT	67.200	30.480 KG
PRELIM	62.200	28.250 KG
PILE WT	4.920	2.230 KG
DRY	1.170	532 LB

00LU 736064 4  
42G1

MGW.  
TARE. 30.480 KGS  
67.200 LBS  
3.670 KG  
8.090 LBS

NET.  
CU. CAP. 26.810 KGS  
59.110 LBS  
6.78 CUM  
2.394 CUFT

GZ YP 796

KÖGEL

BGL P 453

TITANI CONTAINERS

Hapag-Lloyd

GESEACCO

Kalmar

Kalmar



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