Kalmar

The Gloria Range of Reachstackers

DRG450-1300 Range

Meet Gloria

Our Gloria range of reachstackers is our most extensive to date.

It is available with a broad range of lifting capacities and attachments which can be fitted to suit your specific requirements. From moving fully laden containers to shifting 130 tonne wind generator segments, all can be accomplished safely, effectively, and efficiently - just as you would expect from a Kalmar Reachstacker.

What can you expect from Gloria?

- Continuously improved performance and availability levels.
- An ergonomically designed cabin that's more comfortable and safer for your operators.
- CO_2 A range of reachstackers and options that can help reduce your carbon emissions.
- A more connected experience and a range of digital support services.

Kalmar, the home of the reachstacker

Over thirty years ago, in Lidhult, Sweden, we built the world's first commercial reachstacker. Based on the idea that containers could be handled more flexibly, with higher stacking, deeper reach and improved storage capacity, the concept soon became a worldwide success. It marked a new standard in operational efficiency and reliability: one that continues to this day with one of the world's oldest operating reachstackers. Delivered in 1990, it's a machine that is still running strong in Guangzhou, China, after 40,000 hours on the job – and counting.

Now, with over 11,000 reachstackers operating in over 160 countries, we are known for designing and building reachstackers that are safe, reliable, highly efficient; and can stack higher and deeper than other machines. All while continually adapting and innovating to meet the changing needs of both material and container handlers around the globe.

With our range of Gloria Reachstackers, decades of innovative thinking and clever design is once again paying off for our customers, as this generation of reachstackers delivers a leap forward in productivity, ergonomics, and operational efficiency. Now you just need to work out which of our reachstackers is most suited to your operational needs. We are here to help.

“With decades of innovative thinking and clever design.

Optimising uptime

With our latest generation of reachstackers, we've managed to boost performance once again with newly designed integrated components and improved operator interfaces. The result? Simplified maintenance, fewer faults, and a major increase in service intervals.

Improved component integration

Kalmar's G-Generation reachstackers have taken a big leap forward in component integration and construction. For example, our new segmented wiring makes maintenance and replacement simpler and quicker. And with fewer exposed components there is less wear on wiring, hydraulics, and other connectors, improving the reliability and availability of your Kalmar Reachstacker.

Proactive monitoring

Kalmar was the world's first manufacturer to use Can-bus technology as a standard, as it automatically locates failures, compensating with backup bus wires and connectors before the fault can affect your machine. Since an individual electrical component and its backup very rarely fail together, the result is a highly reliable self-correcting pro-active system.

Easier to service

With all major service points accessible from the ground and an engine bay with removable top covers, you'll find it quicker and safer to perform routine checks and maintenance tasks on G-Generation reachstackers.

Longer service periods

Our G-Generation reachstackers have longer service intervals than previous generations, elevating uptime and reducing costs. Combined with Kalmar's global service and after-sales network that is second to none, these improvements make our latest range of reachstackers a frontrunner in non-stop productivity.

Safer and more comfortable

Keeping your drivers safe and comfortable is not only good for your drivers, it's also good for business. Which is why each of our G-Generation reachstackers is fitted with our ergonomically designed EGO cabin, giving your drivers a safer and more comfortable work environment.

G-Generation joystick.
The G-Generation joystick with built-in gear knob is designed to improve driving efficiency. It is optimised for maximum lifting capacity and is ergonomically enhanced to reduce arm fatigue. There are also other optional joysticks available if required.

Adjustable multi-seat.
Fully integrated Kalmar seats have been carefully developed to ensure the best possible comfort and sitting posture for long shifts and demanding operations for your drivers. There are five seats to choose from so you will be sure to find one that suits your drivers' needs.

High-capacity wipers.
With over 90% curved windscreen drying surface, these wipers provide optimal visibility for higher productivity and safety when operating in the rain.

Comfort pedals.
A flexible and fail-safe pedal system with adjustable pedal angles is fitted as standard to minimise foot strain. It's a floor-based solution with a hanging pedal feel, so your drivers can drive a full shift and experience less foot and leg fatigue.

Climate package.
An electronic climate control system is fitted as standard to keep your operators as comfortable as possible in most conditions. Large air intakes mean easy filter replacement in the front, whilst a well-designed climate control system provides superior interior comfort.

Ergonomic steering wheel.
Our patented steering wheel has been specially engineered to reduce stress and increase productivity through careful testing. It is fully adjustable and can also be tilted at an angle to the side for comfortable manoeuvring in any situation.

Work console.
Your operator will find all the key controls, switches, and indicators within easy reach in our ergonomically designed cabin. Work consoles are also adjustable as we know that no two drivers are the same.

Intuitive interfaces.
Kalmar's colour user interface [HMI] used across the range has been intuitively designed for ease of use, with information displayed clearly and logically to ensure that your drivers are kept fully informed.

Enhanced safety.
To further enhance safety, your reachstacker can be fitted with extra cameras to see what is going on behind, additional lights for operating in limited light or at night, a fire suppression system in case of fire on board, and an alco-lock to make sure your drivers are always in complete control of their machine.





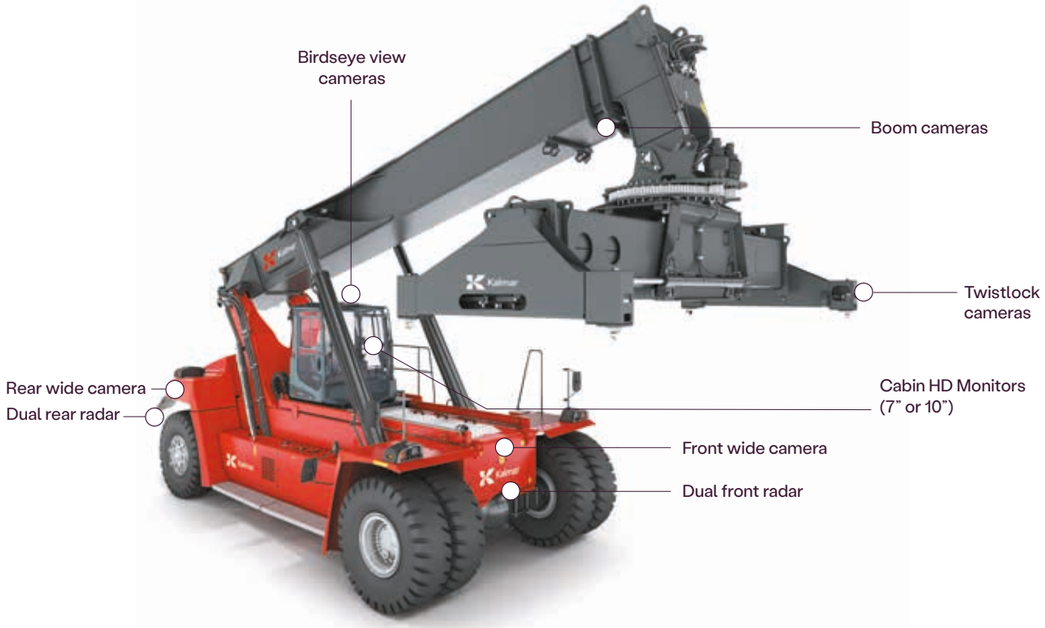




Improved visibility

An open cabin design for optimised visibility at all angles. Smart profiles and curved windows combine to give exceptionally strong forward, diagonal, and rearward visibility.

A range of optional cameras are available that can be mounted in different positions on your reachstacker to improve the operator's visibility of their operating environment.



Meet Gloria's family

The reliability, robustness and success of Gloria's platform has allowed us to extend our initial offering to meet a variety of material handling needs.

Initially designed as a top loader, Gloria now comes in models that have been specifically designed for industrial, intermodal and barge handling applications. Gloria's family has been further expanded with the addition of the Kalmar Eco Reachstacker and the Kalmar Electric Reachstacker.

	Toplift	Barge	Intermodal	Lift Hook	Tool Carrier
Gloria Range*	DRG450S	DRG450S	DRG450C	DRG570-1300Z	DRG500-850A
Eco Range	DRG450SE	DRG450SE	DRG450CE	DRG570-700ZE	DRG500-600AE
Electric Range	ERG450S	ERG450S	ERG450C	ERG700Z	

* Including Super Gloria

The Kalmar Eco Reachstacker

In comparison to older machines, Kalmar's Eco Reachstacker can reduce your fuel consumption by up to 40%, and by up to 25% when compared to more recent machines, cutting your fuel costs and emissions while matching the productivity levels of machines with much larger engines.

The Kalmar Electric Reachstacker

Kalmar's electrically powered range of reachstackers produce zero emissions at source helping to improve the eco-efficiency of your operations while maintaining the highest levels of productivity and safety. With a choice of lifting capacities, attachments, modular battery options and charging solutions, we can work with you to design a solution that will deliver for your business.

Cut costs and lower carbon

Whether you're striving to save on fuel or meet ever tougher emissions standards, your objectives are the same: to reduce costs and lower your carbon emissions. Thanks to our range of smart functions and driver training programmes, operators get all the assistance they need to minimise fuel costs while becoming more eco-efficient.

Cut carbon emissions by up to 90%

HVO100 fuel is a fossil free diesel substitute made from vegetable oil that can be used across the range, cutting carbon emissions by up to 90%. HVO100 is produced by using sustainably sourced vegetable and animal matter to ensure its production does not have any negative impact on the environment and has a chemical structure like diesel fuel, allowing it to be substituted for diesel without any impact on the efficiency of your equipment. HVO100 that meets the EN15940 standard is seen as the best and easiest paraffinic option available to help reduce your carbon emissions immediately.

Options to cut fuel costs

There are many small optional things you can do to reduce your fuel consumption and emissions even further.

Start/stop function.
This option can 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.

Tyre pressure monitoring.
This option provides an integrated tyre pressure monitoring system that gives your driver constant updates on the pressure of each individually monitored tyre. It's an effective way to prevent blowouts and maintain the optimal tyre pressure, further reducing your fuel consumption and emissions by up to 10%.

Automatic engine shutdown.
This option, which can be programmed for any time interval you choose, allows you to decide exactly when your vehicle should shut down when not in motion. Set it for ten seconds, for example, and your engine will automatically turn off after ten seconds of idling. This allows you to effortlessly reduce fuel costs, component wear and carbon emissions.

Eco Drive Modes

Choose between three different drive modes, each optimised to meet your operational requirements. The reachstacker can be adapted to every task at hand, shifting many times during the day. The operator easily shifts between modes by using the cabin display screen.

Power

Brings out the maximum performance of your machine, allowing you to increase the number of tonnes moved per hour.

Normal

Balances power and economy to optimise profitability and reduce fuel consumption by up to 10%.

Save up to 10%

Economy

If total cost of operations outweighs the need for performance, Economy Mode reduces fuel consumption by up to 20%.

Save up to 20%

More options

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.

Reverse Beeper System. When your staff are working side by side with moving vehicles there is always a safety risk. Installing a reverse beeper system provides a clear acoustic alert when the machine is reversing so personnel can make sure that they are out of harm's way at all times.

Reverse Warning System. 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. You can also add additional cameras on the spreaders or on the front of the machine.

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. There are a range of camera solutions available that will enhance the overall safety of your reachstacker when in operation. Cameras extend and enhance the drivers visibility range, record your reachstacker's movements and provide alerts if your reachstacker is at risk of hitting something by using radar. You can choose one solution or combine a number together.

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.

Reduced Steering Radius System. By reducing the overall steering radius of your reachstacker you will reduce wear and tear, extending the life of your tyres.

Drive Speed Limitation System. Automatically restricts the speed at which your equipment can be operated, helping to reduce wear and tear as well as fuel consumption.

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 a battery fire.

Kalmar solutions that help make your equipment more productive

ECO Drive Mode settings. Three drive mode settings will allow you to adapt equipment performance to the required productivity levels at any time. This will ensure maximum performance when needed and reduced fuel consumption and wear and tear at low productivity times.

Kalmar Insight*. Complete overview and management of your fleet and individual equipment performance will allow you to optimise both overall performance and individual equipment and driver performance to ensure high and efficient productivity levels.

Kalmar Tracker

Container Weighing and Load Centricity. A SOLAS compliant solution that automatically weighs and records the container load your machine is handling.

Container ID Recognition. Automatic capture and registration of the container ID allows your drivers to focus on safe and productive container handling.

Container Locator. Ensures you always know where each individual container is in your yard, at any given time.

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

Move whatever you need

Based on your specific needs, the G-Generation reachstacker is available with a complete range of standard and customised features, attachments making it suitable for many different applications.

Guaranteed to deliver.

With a choice of:

- wheelbases from 6,0 up to 9,25 metre
- lifting capacities from 42 to 130 tonnes
- powerful and fuel efficient drivelines combinations to choose from
- attachments which include hooks, magnets, coil rams and a tool carrier which can have a variety of tools fitted.

The G-Generation reachstacker is available for container, intermodal, barge and industrial handling. Whatever your application, our aim is to help adapt your reachstacker for the best possible lifetime utilisation.

When you need to handle very heavy loads

Kalmar's Super Gloria Reachstacker has a top lifting capacity of 130 tonnes or when working in tandem can lift loads of over 200 tonnes, up to 13 metres high. Initially developed for the wind industry to move wind turbine - lifting hubs, blades, towers and nacelles, which are large, heavy and bulky - Super Gloria has proven that it can handle the heaviest of loads efficiently and safely for any application.

Container handling

Industrial handling

Intermodal handling

Trimodal/barge handling

Safety fitted as standard

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.

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.

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 keep them safe and preventing incidental injuries.

Double brake pedals. To avoid driver leg fatigue, every machine is equipped with dual brake pedals which require only heel to toe movements, allowing the driver to move his foot between the accelerator and brake pedals without having to move their leg.

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.

Control Breaker System for load handling. All of our equipment is fitted with a Control Breaker System, which automatically shuts down the load handling system should a fault occur, until the fault has been corrected. Keeping your driver, equipment and load safe.

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.

Operator Presence Detection System. Maintains the highest levels of 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 driver does not fasten their seat belt while in operation.
- The driver leaves their seat without engaging the parking brake.

In addition, if the driver leaves their seat while the machine is operational, the transmission is automatically shifted to neutral 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.

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

Neutral start switch. A neutral start switch means your driver can't start his machine while it is in gear, preventing any damage to the driveline and any uncontrolled equipment movements.

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.

Anti-slip Protection Tape on fenders and tanks. Anti-slip Protection Tape provides additional traction on fenders and tanks to reduce any slipping hazards for driver's and maintenance personnel while working on your Kalmar Reachstacker.

Reverse Camera System. Knowing what is going on behind you is critical when reversing your Kalmar Reachstacker, which is why they are all fitted with a high resolution [1080p] cabin display screen and reversing camera providing excellent reward visibility.

Speed Limiter outside transport mode. Makes sure your Kalmar Reachstacker is always operating at a safe speed when it isn't carrying a load, helping to reduce the risk of accidents and promoting safe operating practices.

Towing Coupling with removable pin. Should something go wrong with your Kalmar Reachstacker we have made it safer to use both tow bars and tow slings making it quicker and easier to recover your machine.

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.

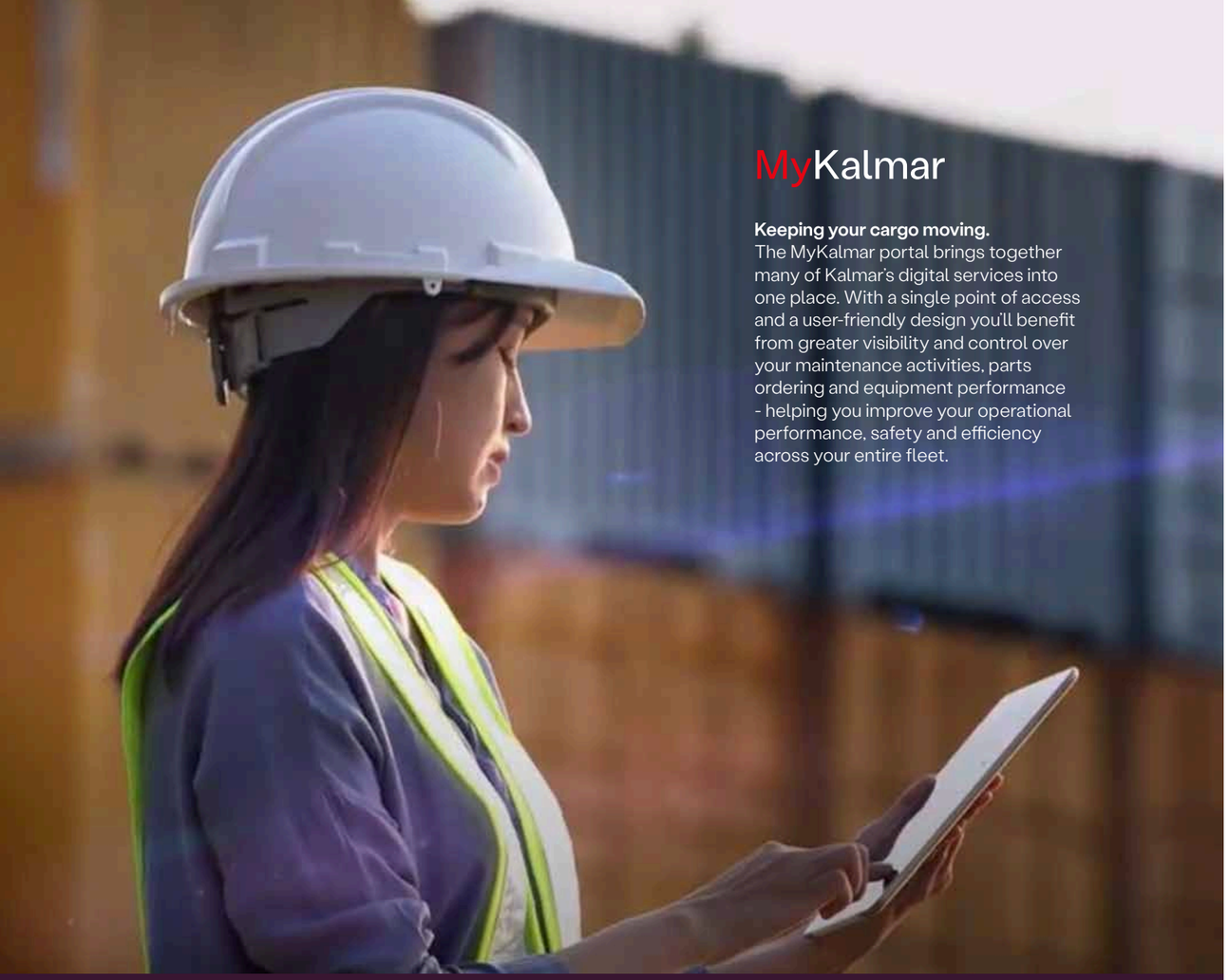
Kalmar Care

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	○	●	
Kalmar Insight	○	●	
Tyre Maintenance		○	
Battery Maintenance		○	
			Top-of-the-line service whenever you need it

● Included ○ Optional



MyKalmar

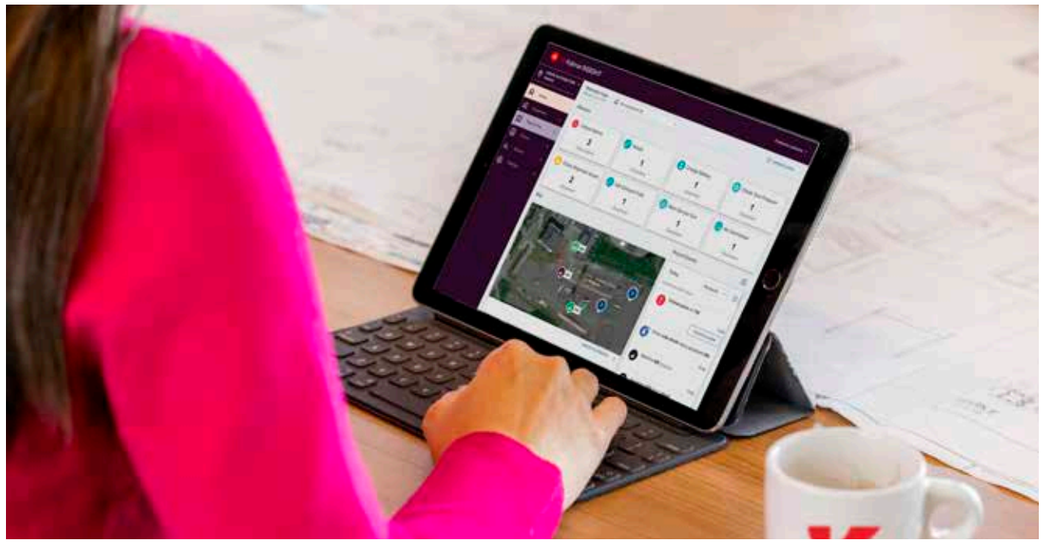
Keeping your cargo moving.
The MyKalmar portal brings together many of Kalmar's digital services into one place. With a single point of access and a user-friendly design you'll benefit from greater visibility and control over your maintenance activities, parts ordering and equipment performance - helping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

MyKalmar 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 Insight

Optimise your operations with Insight.
Kalmar 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. Kalmar 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.

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 DRG 450S-450S (S = Top Lift)
Kalmar DRG 450C-450C (C = Combi Lift)
Kalmar DRG 500A-850A (A = Tool Carrier)
Kalmar DRG 570Z-1300Z (Z = Lift Hook)

Norms Standards and Regulations

- Machinery Directive 2006/42/EC
- Safety Industrial Trucks Standard ISO 3691-2, (EN 1459+A3)
- Safety Low & High Lift Trucks Standard ANSI / ITSDF B56.1
- Stability of Reachstackers Standards ISO 22915-1, -12
- Electrics / Electronics Standard EN 1175
- Electromagnetic Compatibility Directive 2014/30/EC
- Electromagnetic Compatibility Standard EN 12895
- CE-marking (EU/EEA)
- ANSI / ITSDF-marking Forklift Trucks (USA/CAN)
- AS-marking (Australia)
- UKCA-marking (UK)
- Supply of Machinery (Safety) Regulations 2008 (UK)

DRG500A - DRG540A and DRG650A - DRG850A

- Machinery Directive 2006/42/EC
- Safety Industrial Trucks Standard ISO 3691-2, (EN 1459+A3)
- Safety Low & High Lift Trucks Standard ANSI / ITSDF B56.1
- Stability of Reachstackers ISO 22915-1, -11
- Electrics / Electronics Standard EN 1175
- Electromagnetic Compatibility Directive 2014/30/EC
- Electromagnetic Compatibility Standard EN 12895
- Noise Emission Directive 2000/14/EC and 2005/88/EC
- Noise Emission Standard EN 12053
- CE-marking (EU/EEA)
- ANSI / ITSDF-marking Forklift Trucks (USA/CAN)
- AS-marking (Australia)
- UKCA-marking (UK)
- Supply of Machinery (Safety) Regulations 2008 (UK)

Chassis

- Strong and durable heavy-duty chassis
- Safe access steps, platform & hand rails (LHS)
- Long bottom access step (on both sides)
- Lifting eyes and anchor points (front & rear)
- Good rear end visibility of the truck
- Towing pin (rear)

Body

- Steps with anti-slip protection
- Anti slip protection on fenders and tanks
- Rear view mirrors (2x) - rear on front mudguards
- Strong and protective mudguards (front & rear)
- Basic noise insulation for the entire truck

Steer Axle (Rear)

- Kalmar steer axle mounted dual pivot bearings
- Orbitrol power steering with double acting cylinder
- Wheel nut protection on steer tyres

Drive Axle (Front)

- Kessler planetary axle with differential drive
- Wide axle for high side stability (4150 mm)
- Oil-cooled Wet Disc Brakes (WDB)
- High pressure filter (10 mµ) for the brakes
- Brake oil tank (140 lit), cooling & breather filter

Wheels (Tyres and Rims)

- Strong wheels (tyres and rims) in 18.00x25", 18.00x33", 21.00x35" and 24.00x35" (6x)

Drivetrain

- Dana TE-30500 (no lock-up)
- Various engine options
- 6-cylinder diesel engines with pre-heater
- High power & torque with low fuel consumption
- Engine monitoring and protection systems
- Automatic transmission Dana TE-30510
- Precise, soft and efficient shifting of both gears and directions with 5 + 3 gears (F/R)
- Transmission monitoring and reverse protection
- Heavy-duty radiators for engine, transmission, brakes & hydraulics

Load-Sensing Hydraulics

- Load-sensing variable piston pumps
- Pumps for boom, spreader, brakes & steering
- Vane pumps for brake & oil cooling (2x)
- Return filters for the work hydraulics (2x/10 mµ)
- Hydraulic long-life fine filter with bypass (5 mµ)
- Servo filter for the work hydraulics (10 mµ)
- Pressure filter for the brakes (10 mµ)
- Regeneration high-speed lifting & extension
- Boom end-damping (in-out/up-down/20-40˚)
- Hydraulic tank (600 lit), cooling, breather filter & ORFS-couplings

Lifting Boom

- Strong, durable box-type boom with guide pads
- Boom with 2 lift cylinders & 1 extension cylinder

Attachment

- Top Lift (S), 45 tonnes, 20-40', MPS, TWL, 4 lift hooks, sideshift and rotation
- Combi Lift (C), 45 tonnes, 20-30-40', HPS, TWL, 4 lift legs, 4 hooks, end tilt+lock, sideshift & rotation
- Tool Carrier (A), max 85 tonnes, MPS, TWL (2,50 x 0,76 m), 4 lift eyes, sideshift and rotation
- Lift Hook (Z), max 130 tonnes, dual hook, free pivot, free rotation and 4 lift eyes (no rotation)
- S-C-A = 4 floating twistlocks, LED indication lamps and 2 LED work lamps
- S-C-A = Safety locking, alignment pins (4x) and sensors (4x)
- S-C-A = Rotation +195/-105 deg (2 motors and 2 brakes)
- S-C-A = Lift hooks for slings on end beams (4x)
- S-A = Mechanical Pile Slope MPS ±5 deg
- C = Hydraulic HPS ±5 deg
- Large sideshift (S-C = ±800 mm / A = ±450 mm)

Electrical System 24V

- Battery box 2x12V (24V) & main power switch
- Electric service box on chassis (LHS)
- 2 LED head lights on front fenders (one beam)
- 2 LED working lights on boom
- 2 LED working lights on front edge cabin
- 2 LED rear lights on fenders (when reversing)
- 2 LED working lights on attachment (S + C + A)
- 2 LED position lights on each side
- 2 LED tail lights / brake LED-lights
- 4 LED blinker lights (front-rear/left-right)
- 2 LED flashing brake lights (when reversing)
- 1 LED rotating warning beacon
- 1 acoustic signal / reverse alarm (in reverse)

Cabin (EGO)

Structure

- Spacious, modern cabin with good ergonomics
- Large windows, good visibility, in all directions
- Manual moveable cabin (stroke 2375 mm)
- Step for roof access
- Instep handle (left side)
- Sliding window on both sides
- Doors with air damper and key lock (L + R)
- Tinted laminated windows

Comfort

- Comfort seat Kalmar, mechanical 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

Safety

- Colour display TFT-7" (17 cm), inside cabin
- Reverse camera, 1x, rear on counter weight
- Speed limit outside transport mode

Controls

- Joystick for boom, spreader & forward / reverse
- Auto rev-up accelerator at lifting/extension
- Electric accelerator for driving
- Double brake pedals (L + R)
- Button for electronic hand brake (on/off)
- Safety override for hydraulic functions (by code)
- Multi-function lever (LHS) horn, gear/direction switch, high/low beam
- Warning - hand brake (on/off) leaving seat
- Hour meter

Climate

- ECC, electronic climate control, powerful cooler, heater and ventilator
- Air-condition incl. fresh air and recirculation filter
- Wipers/washers; dual wipers on front window, single wipers on rear and roof windows
- Interval wiper functions on front, rear and roof

Information Systems

- Colour display & automatic fault analysis
- Menu control with toggle wheel & push buttons
- Electronic safety, overload, scale & synchronized lift functions
- Longitudinal Load Moment Indicator (Pop-Up Menu)
- Longitudinal Load Moment Control (Pop-Up Menu)

ECO Drive Modes

- Power mode
- Normal mode
- Eco mode

Operator menu

- System voltage
- Engine rpm
- Travelling speed (km/h or mph)
- Hydraulic oil temperature
- Transmission oil temperature
- Engine oil pressure & coolant level
- Engine oil level
- Clock and date
- Load info (tonnes) & Load Centre info (mm)
- Boom extension & Boom angle
- Operating time (hours)
- Service time indicator (hours)
- Boom angle and Boom extension
- Electronic weight scale functions
- Status of Heating, Ventilation and AC system (HVAC)
- Fuel level (diesel and optional AdBlue)
- Estimated operating time before empty tank (hour/min)
- Service indicator
- Container counter with reset function
- Trip computer / statistics

Various warning lights & signals

- Charging battery
- Low brake pressure
- Failure indicator
- Safety system disconnected
- High engine coolant temperature
- Low engine coolant level
- Low engine oil pressure
- Preheating engine
- Transmission oil temperature
- Low fuel level
- Hydraulic oil temperature

Indicator lamps

- Direction indication
- Parking brake

Fleet Management

- Equipped with telemetric hardware for Kalmar Insight

Colour

- Cabin: Iron-Grey RAL 7011
- Chassis, tanks & mudguards: Red RAL 3000
- Boom, attachment & axles: Black RAL 7021
- 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 & joystick stickers
- Fuse diagram
- Instruction manual
- Maintenance manual, digitally
- Spare parts catalogue, digitally

Warranty

- 24 months / 4000 hours

Options

Kalmar DRG 450S-450S (S = Top Lift)
Kalmar DRG 450C-450C (C = Combi Lift)
Kalmar DRG 500A-850A (A = Tool Carrier)
Kalmar DRG 570Z-1300Z (Z = Lift Hook)

Chassis

- DRG ranges in Toplift (S), Intermodal (C), Tool Carrier (A) and Lift Hook (Z)
- Wheelbases: 6.00 - 7.50 m (Gloria range)
- Wheelbases: 8.25 - 9.25 m (Super Gloria range)

Body

- External rear view mirrors (2x)
- Noise insulation kit for the entire truck
- Storage boxes (2x) left and right tank
- Mud flaps (front or/and rear)

Steer Axle (Rear)

- Steer cylinder spacer (less tyre wear)

Wheels (Tyres & Rims)

- Spare wheels, tyres and rims for 18.00x25", 18.00x33", 21.00x35" and 24.00x35"

Drivetrain

- Dana TE-30510 (no lock-up)
- Volvo, TAD-1151-VE - 265 kW (EU Stage 3A / EPA Tier 3)
- Volvo, TAD-1152-VE - 285 kW (EU Stage 3A / EPA Tier 3)
- Volvo, TAD-1181-VE - 265 kW (EU Stage 5 / EPA Tier 4F / KMOE 5)
- Volvo, TAD-1182-VE 285 kW (EU Stage 5 / EPA Tier 4F)
- Cummins QSM-11-C330 - 246 kW (EU Stage 3A / EPA Tier 3)

Attachment

- Tilt function F/R ±2 deg, tilt lock, speed 5 km/h
- Hydraulics Pile Slope, HPS ±5 deg (side tilt), incl tilt lock and speed 5 km/h
- Rotation stop at ±25 deg (incl override switch)
- Automatic extension 20'-40' incl 30' stop
- Barge: Overhigh Folding Legs (L=1.6/2.0 m)
- Barge: extended boom nose (L=1.0/1.6/2.0 m)
- 2 extra lift eyes, centre of spreader (2 x 22.5 T)
- 4 extra lift eyes, middle of spreader (4 x 11.2 T)
- Soft landing with ultrasonic sensor (less noise)
- Twistlock rubber damper (100 mm longer)
- Extended twistlocks 300 mm (250 mm longer)
- Cylinder extension 20'-40' on standard/Tilt/HPS
- WTP Top Lift (Wide Twl Pos), HPS ±5 deg, 30'-35' stop, TWL = 2260-2448 mm
- Big Tilt 0-55 deg, 45 / 32 tonnes, sideways
- Big Tilt 0-55 deg, 45 / 32 tonnes, lengthways
- Big Tilt with hydraulic door opener
- Coil ram, 35 tonnes, coil ID/OD = 500/3000 mm, slave attachment for 20ft or Tool Carrier
- Lift hook (1x) + lift eyes (4x), max 50 tonnes, slave attachment for 20ft or Tool Carrier
- Various industrial lift units, mounted in slave attachments for 20ft or Tool Carrier

Electrical System 24V

- Radio with CD / MP3 / Bluetooth
- Extra sockets 2x24V+2x12V (in door columns)
- Extra sockets 2x24V+2x5V USB (door columns)
- Electric air pressure horn
- Height limitation system for lifting boom
- Load centre limitation for lifting boom
- Extra working light, LED 4x, on front mudguards
- Extra working light, LED 2x, on spreader
- Extra working light, LED 2x, middle of boom
- Extra working light, LED 4x, front of boom
- Extra reverse light, LED 2x, on rear light bracket
- Extra rotating beacon, LED, in boom nose front
- Extra rotating beacon, LED, right side on CW
- Flash light replacing STD beacon on boom
- Nato starter socket 24V (1x)
- Electric heated mirrors, front fender/standard position
- Electric heated and adjustable mirrors, on front fenders (standard position)
- Tyre pressure monitoring system (Bluetooth)
- Cabin heater incl 220V outlet
- Diesel powered cabin heater 5 kW

Cabin

Structure

- Hydraulic sliding cabin (stroke 2375 mm), anti-collision function, avoid load hitting cabin
- Hydraulic elevating cab (stroke 2300 mm) position forward on right side
- Speed limitation depending on cabin position
- Extended rear cabin window 100mm

Comfort

- Seat with air-cushion, heating & 3-p belt
- Seat cover in vinyl
- Head rest for the seat
- Armrest with adjustment (LHS)
- Horizontal dampening/suspension of seat
- Grammer Actimo XL, air-cushion, heat, 3-p belt
- Isringhausen 6830KA/870, air-cush, heat, 3-p belt
- Extra trainer seat incl 2-p safety belt (LHS)
- Bracket for terminal and monitor (RHS)
- Write pad, A4 paper box & reading lamp (RHS)
- Extra rear-view mirror inside cabin

Controls

- Lever steering incl switch for forward/reverse
- Mini-wheel steering incl F-N-R switch
- Override key switch
- EGO joystick

Climate

- Sun visor front-roof-rear windows (of black net)
- Sun visor roof window (of reflecting film)
- Post-heating (break heater function)

Additional Equipment

- Fire extinguisher 6 kg, powder
- Tool kit
- Extra sound insulation - reduction 3 dB(A)
- Lockable fuel cap
- Central greasing (base truck + steering)
- Central greasing (entire spreader)
- Filter kit 2000 - 4000 hrs

Safety

- Reverse warning system including sensors
- Tyre pressure monitoring system
- Seat belt interlock (machine will not go in gear if seat belt is off)
- Front chassis camera, 1x, above drive axle
- Front of outer boom, 1x, facing forward
- Below inner boom, 1x, facing forward
- Twistlock cameras, 2x, in spreader end beams
- Combi legs camera, 2x, facing down on trailer
- Reverse warning system, TFT-7" display, reverse camera, 4 rear sensors
- Forward warning system, TFT-7" display, reverse camera, 4 rear sensors
- Alcolock Draeger in cabin
- Height limitation system for lifting boom, specify height
- Including load centre limitation for lifting boom
- Semi-automatic fire suppression system
- Speed limitation, please specify km/h
- Various speed limitations (with/without load)
- Speed warning at 15km/h
- Speed limitation (default setting 19km/h)

Information Systems

- VDI - Vehicle Data Interface

Fleet Management

- Kalmar Insight licence (only certified countries)
- Kalmar Insight Driver Monitor (RFID reader + 10 unique driver tags)
- Kalmar Insight extra driver tags (10 tags)

Kalmar Load Measurement System

- Semi-automatic weight checking and recording system including time, date and load
- SOLAS compliant (VGM - Verified Gross Mass)

Colour

- Other RAL colour than standard, chassis
- Special and multiple colours, chassis
- Other colour than standard, striping foil
- Reinforced anti-corrosion protection

Documentation and Decals

- Extra set of documentation
- Workshop manuals
- Volvo trouble shooting and repair kit
- Load chart lbs/inch in cab & sign "no riders"
- Documentation on CD or memory stick
- Maintenance manual, printed
- Spare parts catalogue, printed

Training

- Various training packages, for drivers, service, maintenance, software etc
- Contact Kalmar Training Centre for more information and planning

Warranty

- Extended warranty packages available - please contact your local Kalmar Sales representative

Specifications*

					DRG450-60S5	DRG450-60S5M	DRG450-60S5X	DRG450-65S5	DRG450-65S5X	DRG450-65S5XS	DRG450-65S6	DRG450-65S6X	DRG450-65S6H	DRG450-65S6HX	DRG450-65S6HXS
LIFT MODEL CAPACITY		Type of handling			Container handling			Container handling							
		Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3- Q4	tons	45 - 27 - 13	45 - 30 - 15	45 - 35 - 18	45 - 32 - 16	45 - 38 - 21	45 - 38 - 21	45 - 32 - 16 - 9	45 - 38 - 21 - 12	45 - 33 - 18 - 10	45 - 39 - 21 - 13	45 - 39 - 21 - 13
		Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3- Q4	tons						45 - 41 - 29					45 - 41 - 29 - 18
		Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	1965 - 3815 - 6315			1965 - 3815 - 6315	1865 - 3815 - 6315		2265 - 3815 - 6315	2165 - 3815 - 6315	2965 - 3815 - 6315 - 8815	2865 - 3815 - 6315 - 8815	
		Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	6/5 - 5/5 - 4/4 - 2/2	6/5 - 5/5 - 4/4 - 2/2	6/6 - 6/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3
		Lost load centre, to front face of tyres	X	mm	835	835	935	835	935	935	835	935	835	935	935
		Wheelbase	L3	mm	6000	6000	6000	6500	6500	6500	6500	6500	6500	6500	6500
WEIGHTS[1]		Service weight, standard truck		kg	67400	69400	77500	69500	76300	80300	70500	77500	73500	82500	83500
		Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	34600 - 100600	34600 - 100600	35600 - 101600	35000 - 99400	35000 - 99400	38500 - 102900	36000 - 102500	36500 - 103000	39000 - 110300	41500 - 112800	42500 - 113800
		Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	39000 - 86900	39000 - 92200	40200 - 102900	39000 - 93900	39200 - 105000	42800 - 108600	39500 - 94400	40200 - 105900	41000 - 97600	43800 - 111300	44800 - 112300
		Axle load, rear at load centre L4, unloaded - loaded		kg	32800 - 11800	34800 - 13800	41900 - 20900	34500 - 15100	41300 - 21900	41800 - 22400	34500 - 13000	41000 - 19500	34500 - 8200	41000 - 14700	41000 - 14700
		Axle load, rear at load centre L5, unloaded - loaded		kg	28400 - 7500	30400 - 7200	37300 - 9600	30500 - 7600	37100 - 9300	37500 - 9700	31000 - 8100	37300 - 9600	32500 - 8900	38700 - 10200	38700 - 10200
REACHSTACKER DIMENSIONS		Boom angle, min - max		deg	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 62	0 - 62	0 - 63	0 - 63	0 - 63
		Boom height, min - max	H3 - H5	mm	4600 - 18200	4600 - 18200	4700 - 18300	4600 - 18200	4700 - 18300	4700 - 18300	4500 - 19250	4600 - 19350	4700 - 20800	4700 - 20900	4700 - 20900
		Chassis height - top of boom fixation, max	H2	mm	3925	3925	4025	3925	4025	4025	3925	4025	3925	3925	3925
		Lift height, max	H4	mm	15100	15100	15200	15100	15200	15100	16200	16300	17700	17800	17800
		Boom reach stroke		mm	7000	7000	7000	7000	7000	7000	7700	7700	8500	8500	8500
		Truck height - seat height	H6 - H8	mm	4600 - 2575	4600 - 2575	4700 - 2675	4600 - 2575	4700 - 2675	4700 - 2675	4500 - 2575	4600 - 2675	4700 - 2575	4700 - 2675	4700 - 2675
		Overall truck length with boom	L	mm	11200	11200	11200	11700	11700	11700	12000	12000	12700	12700	12700
		Truck width over drive axle	B	mm	4150	4150	4150	4150	4150	4150	4150	4150	4150	4150	4150
		Spreader sideshift	V1	mm	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)
		Spreader rotation		deg	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105
		Ground clearance	min	mm	250	250	300	250	300	300	250	300	250	300	300
		Aisle width with 20'-40' container	A1 - A2	mm	11200 - 13600	11200 - 13600	11200 - 13600	11600 - 13600	11600 - 13600	11600 - 13600	11900 - 13900	11900 - 13900	12300 - 14150	12300 - 14150	12300 - 14150
		Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	8100 - 9400	8100 - 9400	8100 - 9400	8500 - 9400	8500 - 9400	8500 - 9400	8500 - 9450	8500 - 9450	8600 - 9450	8600 - 9450	8600 - 9450
		Turning radius, outer (at 90 degree turn)	R1	mm	-	-	-								
WHEELS	Wheels	Number of wheels, front – rear (x = driven)			4 – 2			4 – 2							
	Tyres	Pneumatics, type / pressure (front - rear)		MPa	Diagonal / 1.0			Diagonal / 1.0							
		Dimensions, front – rear		tum	18.00×25"	18.00×25"	18.00×33"	18.00×25"	18.00×33"	18.00×33"	18.00×25"	18.00×33"	18.00×25"	18.00×33"	18.00×33"
	Rims	Dimensions, front – rear			13.00x25"/2.5	13.00x25"/2.5	13.00x33"/2.5	13.00x25"/2.5	13.00x33"/2.5	13.00x33"/2.5	13.00x25"/2.5	13.00x33"/2.5	13.00x25"/2.5	13.00x33"/2.5	13.00x33"/2.5
		Track width (front - rear)	S1 - S2	mm	3030 - 2600	3030 - 2600	3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2800
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / hydraulic power steering / double acting single cylinder			Kalmar steer axle / hydraulic power steering / double acting single cylinder							
	Drive axle	Manufacturer, type - designation			Kessler D102-PL341 / drive axle with differential and hub reduction			Kessler D102-PL341 / drive axle with differential and hub reduction							
	Service brakes	Type – affected wheels			Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels							
	Parking brake	Type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels							
HYDRAULICS	Hydraulics	System type / pump type			Load-sensing function / power-on-demand / variable piston pumps			Load-sensing function / power-on-demand / variable piston pumps							
	Oil pressure	Max working pressure boom / spreader		MPa	23 / 16			23 / 16							
	Tank	Oil volume		Lit	740 (600 + 140)			740 (600 + 140)							
		Fuel tank, capacity		Lit	550			550							
		AdBlue tank, capacity		Lit	35			35							

Notes*:

1. Weights and axle loadings are preliminary and are subject to change;
   DRG450-92C5X, DRG450-82C5X, DRG850-82A4X , DRG850-82A4XS, DRG1000-82ZXS DRG1300-92ZXS

2. 360 / 360 (endless) for lifting hook

3. Lift eyes
   DRG850-82A4X 100 - 87 - 68 - 55 - 46 (no jacks)
   DRG850-82A4XS 100 - 100 - 80 - 72 - 60 (with jacks)
   DRG850-92A4X 100 - 92 - 75 - 53 - 39 (no jacks)
   DRG850-92A4XS 100 - 100 - 89 - 68 - 50 (with jacks)

Specifications*

					DRG450-70S5X	DRG450-70S5XS	DRG450-70S6HXS	DRG450-75S5XS	DRG450-75S6HXS	DRG450-82S5X	DRG450-82S5XS	DRG450-92S5X	DRG450-92S5XS
LIFT MODEL CAPACITY		Type of handling			Container handling			Container handling			Container handling		
		Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3- Q4	tons	45 - 41 - 23	45 - 41 - 23	45 - 41 - 23 -14	45 - 45 - 26	45 - 45 - 27 - 17	45 - 45 - 37 - 24	45 - 45 - 37 - 24	45 - 45 - 41 - 28	45 - 45 - 43 - 28
		Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3- Q4	tons	-	45 - 41 - 31	45 - 41 - 31 -19	45 - 45 - 34	45 - 45 - 35 - 23	-	45 - 45 - 45 - 32	-	45 - 45 - 45 - 36
		Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	1865 - 3815 - 6315		2865 - 3815 - 6315 - 8815	1865 - 3815 - 6315	2865 - 3815 - 6315 - 8815	2765 - 3915 - 6415 - 8915			
		Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3	5/5 - 5/5 - 5/5 - 4/4	5/5 - 5/5 - 5/5 - 4/4	5/5 - 5/5 - 5/5 - 4/4	5/5 - 5/5 - 5/5 - 4/4
		Lost load centre, to front face of tyres	X	mm	935	935	935	935	935	1035	1035	1035	1035
		Wheelbase	L3	mm	7000	7000	7000	7500	7500	8250	8250	9250	9250
WEIGHTS[1]		Service weight, standard truck		kg	78800	80300	84400	82400	87200	104200	105200	106200	107200
		Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	37500 - 100500	39000 - 102000	42600-112000	40000 - 101800	43900 - 111700	52600 - 118300	53600 - 119300	53600 - 119300	54600 - 120300
		Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	41500 - 110300	43000 - 111800	44700-113500	43800 - 117300	46000 - 119500	54900 - 126900	55900 - 127900	55900 - 127900	56900 - 128900
		Axle load, rear at load centre L4, unloaded - loaded		kg	41300 - 23300	41300 - 23300	41800-17400	42400 - 25600	43300 - 20500	51600 - 30900	51600 - 30900	51600 - 33100	51600 - 33100
		Axle load, rear at load centre L5, unloaded - loaded		kg	37300 - 9500	37300 - 9500	39700-11900	38600 - 10100	41200 - 12700	49300 - 22300	49500 - 22300	49500 - 25400	49500 - 25400
REACHSTACKER DIMENSIONS		Boom angle, min - max		deg	0 - 60	0 - 60	0 - 63	0 - 58	0 - 61	0 - 47	0 - 47	0 - 47	0 - 47
		Boom height, min - max	H3 - H5	mm	4700 - 18300	4700 - 18300	4700 - 20900	4750 - 18400	4750 - 21000	5250 - 19400	5250 - 19400	5250 - 19400	5250 - 19400
		Chassis height - top of boom fixation, max	H2	mm	4050	4050	4050	4025	4025	4300	4300	4300	4300
		Lift height, max	H4	mm	15100	15100	17800	15200	17800	15800	15800	15800	15800
		Boom reach stroke		mm	7000	7000	8500	7000	8500	8500	8500	8500	8500
		Truck height - seat height	H6 - H8	mm	4700 - 2675	4700 - 2675	4700 - 2675	4750 - 2675	4750 - 2675	5250 - 2950	5250 - 2950	5250 - 2950	5250 - 2950
		Overall truck length with boom	L	mm	12200	12200	13200	12700	13700	14700	14700	15700	15700
		Truck width over drive axle	B	mm	4150	4150	4150	4150	4150	4600	4600	4600	4600
		Spreader sideshift	V1	mm	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)
		Spreader rotation		deg	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105
		Ground clearance	min	mm	300	300	300	300	300	300	300	300	300
		Aisle width with 20'-40' container	A1 - A2	mm	12100 - 13600	12100 - 13600	12800 - 14350	12500 - 13600	13100 - 14350	15900 - 16700	15900 - 16700	16150	17000 - 17200
		Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	9000 - 9400	9000 - 9400	9000 - 9450	9400 - 11400	9400 - 9500	11300 - 12100	11300 - 12100	12450 - 12650	12450 - 12650
		Turning radius, outer (at 90 degree turn)	R1	mm	-	-	-	-	-	-	-	-	-
WHEELS	Wheels	Number of wheels, front – rear (x = driven)			4 – 2			4 – 2			4 – 2		
	Tyres	Pneumatics, type / pressure (front - rear)		MPa	Diagonal / 1.0			Diagonal / 1.0			Diagonal / 1.0		
		Dimensions, front – rear		tum	18.00×33"			18.00×33"		21.00×35"	21.00×35"	21.00×35"	21.00×35"
	Rims	Dimensions, front – rear			13.00x33"/2.5			13.00x33"/2.5		15.00x35"/3.0	15.00x35"/3.0	15.00x35"/3.0	15.00x35"/3.0
		Track width (front - rear)	S1 - S2	mm	3030 - 2800			3030 - 2800		3250 - 3300	3250 - 3300	3250 - 3300	3250 - 3300
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / hydraulic power steering / double acting single cylinder		Kalmar steer axle / hydraulic power steering / double acting single cylinder			Kalmar steer axle / hydraulic power steering / double acting single cylinder			
	Drive axle	Manufacturer, type - designation			Kessler D102-PL341 / drive axle with differential and hub reduction		Kessler D102-PL341 / drive axle with differential and hub reduction			Kessler D111-P447/PL545 / drive axle with differential and hub reduction			
	Service brakes	Type – affected wheels			Oil cooled wet disc brakes (WDB) / drive wheels		Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels			
	Parking brake	Type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels		Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels			
HYDRAULICS	Hydraulics	System type / pump type			Load-sensing function / power-on-demand / variable piston pumps		Load-sensing function / power-on-demand / variable piston pumps			Load-sensing function / power-on-demand / variable piston pumps			
	Oil pressure	Max working pressure boom / spreader		MPa	23 / 16		23 / 16			23 / 16			
	Tank	Oil volume		Lit	740 (600 + 140)		740 (600 + 140)			840 (700 + 140)			
		Fuel tank, capacity		Lit	550		550			580			
		AdBlue tank, capacity		Lit	35		35			35			

Notes*:

1. Weights and axle loadings are preliminary and are subject to change;
   DRG450-92C5X, DRG450-82C5X, DRG850-82A4X , DRG850-82A4XS, DRG1000-82ZXS DRG1300-92ZXS

2. 360 / 360 (endless) for lifting hook

3. Lift eyes
   DRG850-82A4X 100 - 87 - 68 - 55 - 46 (no jacks)
   DRG850-82A4XS 100 - 100 - 80 - 72 - 60 (with jacks)
   DRG850-92A4X 100 - 92 - 75 - 53 - 39 (no jacks)
   DRG850-92A4XS 100 - 100 - 89 - 68 - 50 (with jacks)

Specifications*

					DRG450-60C5	DRG450-60C5X	DRG450-65C5	DRG450-65C5X	DRG450-65C5XS	DRG450-70C5X	DRG450-70C5XS	DRG450-75C5XS	DRG450-82C5X	DRG450-82C5XS
LIFT MODEL CAPACITY		Type of handling			Intermodal handling		Intermodal handling			Intermodal handling				
		Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3- Q4	tons	45 - 25 - 10	45 - 32 - 15	45 - 28 - 13	45 - 34 - 17	45 - 34 - 17	45 - 38 - 20	45 - 38 - 20	45 - 43 - 24	45 - 45 - 34 - 21	45 - 45 - 34 - 21
		Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3- Q4	tons	-	-	-	-	45 - 38 - 24	-	45 - 38 - 27	45 - 45 - 32	-	45 - 45 - 45 - 29
		Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	1965 - 3815 - 6315	1865 - 3815 - 6315	1965 - 3815 - 6315	1865 - 3815 - 6315			1865 - 3815 - 6315		2765 - 3915 - 6415 - 8915	
		Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/5 - 5/5 - 4/4	5/5 - 5/5 - 5/5 - 4/4
		Lost load centre, to front face of tyres	X	mm	835	935	835	935	935	935	935	935	1035	1035
		Wheelbase	L3	mm	6000	6000	6500	6500	6500	7000	7000	7500	8250	8250
WEIGHTS[1]		Service weight, standard truck		kg	73500	81800	74100	81300	83500	83300	84800	88400	111000	111000
		Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	41000 - 107000	42000 - 108000	41600 - 106000	42400 - 106800	44500 - 108900	43500 - 106500	45000 - 108000	46000 - 107800	60000 - 125700	60000 - 125700
		Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	46700 - 91100	48000 - 105400	46900 - 94900	48000 - 106800	50200 - 109000	48800 - 112600	50300 - 114100	51000 - 121200	63000 - 135000	63000 - 135000
		Axle load, rear at load centre L4, unloaded - loaded		kg	32500 - 11500	39800 - 18800	32500 - 13100	38900 - 19500	39000 - 19600	39800 - 21800	39800 - 21800	42400 - 25600	51000 - 30300	51000 - 30300
		Axle load, rear at load centre L5, unloaded - loaded		kg	26800 - 7400	33800 - 8400	27200 - 7200	33300 - 8500	33300 - 8500	34500 - 8700	34500 - 8700	37400 - 10200	48000 - 21000	48000 - 21000
REACHSTACKER DIMENSIONS		Boom angle, min - max		deg	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 58	0 - 47	0 - 47
		Boom height, min - max	H3 - H5	mm	4600 - 18200	4600 - 18500	4600 - 18200	4700 - 18300	4700 - 18300	4700 - 18300	4700 - 18300	4750 - 18400	5250 - 19400	5250 - 19400
		Chassis height - top of boom fixation, max	H2	mm	3925	4050	3925	3925	3925	4050	4050	4050	4300	4300
		Lift height, max	H4	mm	14900	15000	14900	15000	14900	14900	14900	15000	15600	15600
		Boom reach stroke		mm	7000	7000	7000	7000	7000	7000	7000	7000	8500	8500
		Truck height - seat height	H6 - H8	mm	4600 - 2575	4600 - 2675	4600 - 2575	4700 - 2675	4700 - 2675	4700 - 2675	4700 - 2675	4750 - 2700	5250 - 2950	5250 - 2950
		Overall truck length with boom	L	mm	11200	11200	11700	11700	11700	12200	12200	12700	14700	14700
		Truck width over drive axle	B	mm	4150	4150	4150	4150	4150	4150	4150	4150	4600	4600
		Spreader sideshift	V1	mm	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)
		Spreader rotation		deg	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105
		Ground clearance	min	mm	250	300	250	300	300	300	300	300	300	300
		Aisle width with 20'-40' container	A1 - A2	mm	11200 - 13600	11200 - 13600	11600 - 13600	11600 - 13600	11600 - 13600	12100 - 13600	12100 - 13600	12500 - 13600	15900 - 16700	15900 - 16700
		Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	8000 - 9400	8100 - 9400	8500 - 9400	8500 - 9400	8500 - 9400	9000 - 9400	9000 - 9400	9400 - 9400	11300 - 12100	11300 - 12100
		Turning radius, outer (at 90 degree turn)	R1	mm	-	-	-	-	-					
WHEELS	Wheels	Number of wheels, front – rear (x = driven)			4 – 2		4 – 2			4 – 2			4 – 2	
	Tyres	Pneumatics, type / pressure (front - rear)		MPa	Diagonal / 1.0		Diagonal / 1.0			Diagonal / 1.0			Diagonal / 1.0	
		Dimensions, front – rear		tum	18.00×25"	18.00×33"	18.00×25"	18.00×33"	18.00×33"	18.00×33"			21.00×35"	
	Rims	Dimensions, front – rear			13.00x25"/2.5	13.00x33"/2.5	13.00x25"/2.5	13.00x33"/2.5	13.00x33"/2.5	13.00x33"/2.5			15.00x35"/3.0	
		Track width (front - rear)	S1 - S2	mm	3030 - 2800		3030 - 2800			3030 - 2800			3230 - 3300	
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / hydraulic power steering / double acting single cylinder		Kalmar steer axle / hydraulic power steering / double acting single cylinder			Kalmar steer axle / hydraulic power steering / double acting single cylinder			Kalmar steer axle / hydraulic power steering / double acting single cylinder	
	Drive axle	Manufacturer, type - designation			Kessler D111-P447/PL545 / drive axle with differential and hub reduction		Kessler D111-P447/PL545 / drive axle with differential and hub reduction			Kessler D102-PL341 / drive axle with differential and hub reduction			Kessler D111-P447/PL545 / drive axle with differential and hub reduction	
	Service brakes	Type – affected wheels			Oil cooled wet disc brakes (WDB) / drive wheels		Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels	
	Parking brake	Type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels		Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels	
HYDRAULICS	Hydraulics	System type / pump type			Load-sensing function / power-on-demand / variable piston pumps		Load-sensing function / power-on-demand / variable piston pumps			Load-sensing function / power-on-demand / variable piston pumps			Load-sensing function / power-on-demand / variable piston pumps	
	Oil pressure	Max working pressure boom / spreader		MPa	23 / 16		23 / 16			23 / 16			23 / 16	
	Tank	Oil volume		Lit	740 (600 + 140)		740 (600 + 140)			740 (600 + 140)			840 (700 + 140)	
		Fuel tank, capacity		Lit	550		550			550			580	
		AdBlue tank, capacity		Lit	35		35			35			35	

Notes*:

1. Weights and axle loadings are preliminary and are subject to change:
   DRG450-92C5X, DRG450-82C5X, DRG850-82A4X ,
   DRG850-82A4XS, DRG1000-82ZXS DRG1300-92ZXS

2. 360 / 360 (endless) for lifting hook

3. Lift eyes
   DRG850-82A4X 100 - 87 - 68 - 55 - 46 (no jacks)
   DRG850-82A4XS 100 - 100 - 80 - 72 - 60 (with jacks)
   DRG850-92A4X 100 - 92 - 75 - 53 - 39 (no jacks)
   DRG850-92A4XS 100 - 100 - 89 - 68 - 50 (with jacks)

Specifications*

					DRG450-92C5X	DRG450-92C5XS	DRG500-60A5	DRG540-60A5X	DRG540-65A5X	DRG540-65A5XS	DRG600-75A5X	DRG600-75A5XS	DRG650-82A5X	DRG650-82A5XS
		Type of handling			Intermodal handling		Industrial handling						Industrial handling - data on request	
LIFT MODEL CAPACITY		Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3- Q4	tons	45 - 45 - 38 - 25	45 - 45 - 38 - 25	50 - 27 - 16 - 11 - N/A	54 - 33 - 20 - 14	54 - 38 - 25 - 17	54 - 38 - 25 - 17	60 - 45 - 29 - 21	60 - 45 - 29 - 21	-	-
		Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3- Q4	tons	-	45 - 45 - 45 - 33	-	-	-	-	-	60 - 50 - 38 - 27	-	-
		Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	2765 - 3915 - 6415 - 8915		2000 - 4000 - 6000 - 8000 - 10000						-	-
		Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	5/5 - 5/5 - 5/5 - 4/4	5/5 - 5/5 - 5/5 - 4/4	-	-	-	-	-	-	-	-
		Lost load centre, to front face of tyres	X	mm	1035	1035	835	935	935	935	935	935	-	-
		Wheelbase	L3	mm	9250	9250	6000	6000	6500	6500	7500	7500	-	-
WEIGHTS[1]		Service weight, standard truck		kg	111000	111000	63000	74000	74000	76200	77000	78000	-	-
		Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	60000 - 123500	60000 - 123500	29500 - 102800	31000 - 110200	31000 - 108300	33200 - 110500	34200 - 118700	35000 - 117400	-	-
		Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	62700 - 131700	62700 - 131700	-	-	-	-	-	-	-	-
		Axle load, rear at load centre L4, unloaded - loaded		kg	51000 - 32500	51000 - 32500	33500 - 10200	43000 - 17800	43000 -19700	43000 - 19700	42800-19300	43000 - 20600	-	-
		Axle load, rear at load centre L5, unloaded - loaded		kg	48000 - 24300	48000 - 24300	-	-	-	-	-	-	-	-
REACHSTACKER DIMENSIONS		Boom angle, min - max		deg	0 - 47	0 - 47	0 - 60	0 - 60	0 - 60	0 - 60	0 - 48		-	-
		Boom height, min - max	H3 - H5	mm	5250 - 19400	5250 - 19400	4600 - 18200	4700 - 18300	4700 - 18300	4700 - 18300	4750 - 18400	4750 - 18400	–	-
		Chassis height - top of boom fixation, max	H2	mm	4300	4300	3925	4050	4050	4025	4025	4025	-	-
		Lift height, max	H4	mm	15600	15600	15150	15250	15250	15250	15250	15250	-	-
		Boom reach stroke		mm	8500	8500	7000	7000	7000	7000	7000	7000	-	-
		Truck height - seat height	H6 - H8	mm	5250 - 3000	5250 - 3000	4600 - 2575	4700 - 2675	4700 - 2675	4700 - 2675	2675	2675	-	-
		Overall truck length with boom	L	mm	15700	15700	10800	10800	11300	11300	12300	12300	-	-
		Truck width over drive axle	B	mm	4600	4600	4150	4150	4150	4150	4150	4150	-	-
		Spreader sideshift	V1	mm	=+/-800 (1600)	=+/-800 (1600)	=+/-450	=+/-450	=+/-450	=+/-450	=+/-450	=+/-450	-	-
		Spreader rotation		deg	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	-	-
		Ground clearance	min	mm	300	300	250	300	300	300	300	300	-	-
		Aisle width with 20'-40' container	A1 - A2	mm	17000 - 17200	17000 - 17200	-	-	-	-	-	-	-	-
		Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	12450 - 12650	12450 - 12650	-	-	-	-	-	-	-	-
		Turning radius, outer (at 90 degree turn)	R1	mm	-	-	8100	8100	8500	8500	9400	9400		
WHEELS	Wheels	Number of wheels, front – rear (x = driven)			4 – 2		4 – 2						4 – 2	
	Tyres	Pneumatics, type / pressure (front - rear)		MPa	Diagonal / 1.0		Diagonal / 1.0						Diagonal / 1.0	
		Dimensions, front – rear		tum	21.00×35"		18.00×25"	18.00×33"	18.00×33"	18.00×33"	18.00×33"	18.00×33"	21.00×35"	
	Rims	Dimensions, front – rear			15.00x35"/3.0		13.00x25"/2.5	13.00x33"/2.5	13.00x33"/2.5	13.00x33"/2.5	13.00x33"/2.5	13.00x33"/2.5	15.00x35"/3.0	
		Track width (front - rear)	S1 - S2	mm	3250 - 3300		3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2800	-	-
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / hydraulic power steering / double acting single cylinder		Kalmar steer axle / hydraulic power steering / double acting single cylinder						Kalmar steer axle / hydraulic power steering / double acting single cylinder	
	Drive axle	Manufacturer, type - designation			Kessler D111-P447/PL545 / drive axle with differential and hub reduction		Kessler D102-PL341 / drive axle with differential and hub reduction						Kessler D111-P447/PL545 / drive axle with differential and hub reduction	
	Service brakes	Type – affected wheels			Oil cooled wet disc brakes (WDB) / drive wheels		Oil cooled wet disc brakes (WDB) / drive wheels						Oil cooled wet disc brakes (WDB) / drive wheels	
	Parking brake	Type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels		Single dry disc / spring activated - hydraulic release / drive wheels						Single dry disc / spring activated - hydraulic release / drive wheels	
HYDRAULICS	Hydraulics	System type / pump type			Load-sensing function / power-on-demand / variable piston pumps		Load-sensing function / power-on-demand / variable piston pumps						Load-sensing function / power-on-demand / variable piston pumps	
	Oil pressure	Max working pressure boom / spreader		MPa	23 / 16		23 / 16						-	-
	Tank	Oil volume		Lit	840 (700 + 140)		740 (600 + 140)						-	840 (700 + 140)
		Fuel tank, capacity		Lit	580		550						-	580
		AdBlue tank, capacity		Lit	35		35						-	35

Notes*:

1. Weights and axle loadings are preliminary and are subject to change;
   DRG450-92C5X, DRG450-82C5X, DRG850-82A4X ,
   DRG850-82A4XS, DRG1000-82ZXS DRG1300-92ZXS

2. 360 / 360 (endless) for lifting hook

3. Lift eyes
   DRG850-82A4X 100 - 87 - 68 - 55 - 46 (no jacks)
   DRG850-82A4XS 100 - 100 - 80 - 72 - 60 (with jacks)
   DRG850-92A4X 100 - 92 - 75 - 53 - 39 (no jacks)
   DRG850-92A4XS 100 - 100 - 89 - 68 - 50 (with jacks)

Specifications*

					DRG650-92A5X	DRG650-92A5XS	DRG850-82A4X[3]	DRG850-82A4XS[3]	DRG850-92A4X[3]	DRG850-92A4XS[3]	DRG570-65Z	DRG600-65ZX	DRG600-65ZXS
	Type of handling				Industrial handling		Industrial handling				Industrial handling		
LIFT MODEL CAPACITY	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3- Q4	tons		65 - 65 - 47 - 34 - 26	65 - 65 - 47 - 34 - 26	85 - 85 - 68 - 46 - 34	85 - 85 - 68 - 46 - 34	85 - 85 - 75 - 53- 39	85 - 85 - 75 - 53- 39	57-54-31-19-14	60-60-38- 25-18	60-60-38- 25-18
	Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3- Q4	tons		–	65 - 65 - 60 - 45 - 34	-	85 - 85 - 80 - 72 - 45	-	85 - 85 - 85 - 68 - 50	-	-	60-60-45-34-24
	Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm		2000 - 4000 - 6000 - 8000 - 10000		2000 - 4000 - 6000 - 8000 - 10000				1500 - 2000 - 4000 - 6000 - 8000		
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm		-	-	-	-	-	-	-	-	-
	Lost load centre, to front face of tyres	X	mm		-	-					835	935	935
	Wheelbase	L3	mm		9250	9250	8250	8250	9250	9250	6500	6500	6500
WEIGHTS[1]	Service weight, standard truck		kg		98500	100500	112400	112400	113000	114300	61100	70900	72100
	Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg		-	47400 - 133700	49300 - 166300	49300 - 166300	49400 - 162900	50600 - 164100	26000 - 103500	27300 - 114600	28300 - 115600
	Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg		-	-	-	-	-	-	-	-	-
	Axle load, rear at load centre L4, unloaded - loaded		kg		-	53100 - 31800	63100 - 31100	63100 - 31100	63600 - 35100	63700 - 35200	35100 - 14600	43600 - 16300	43600 - 16300
	Axle load, rear at load centre L5, unloaded - loaded		kg		-	-	-	-	-	-	-	-	-
REACHSTACKER DIMENSIONS	Boom angle, min - max		deg		0 - 47	0 - 47	0 - 42	0 - 42	-	-	0 - 60	0 - 60	0 - 60
	Boom height, min - max	H3 - H5	mm		5250 - 19400	5250 - 19400	5250 - 16400	5250 - 16400	5250 - 16400	5250 - 16400	4600 - 18200	4700 - 18300	4700 - 18300
	Chassis height - top of boom fixation, max	H2	mm		4300	4300	4300	4300	4300	4300	3925	4050	4050
	Lift height, max	H4	mm		15950	15950	13000	13000	13000	13000	15200	15200	15200
	Boom reach stroke		mm		8500	8500	7000	7000	7000	7000	7000	7000	7000
	Truck height - seat height	H6 - H8	mm		2675	2675	5250 - 3100	5250 - 3100	5250 - 3100	5250 - 3100	4600 - 2575	4700 - 2675	4700 - 2675
	Overall truck length with boom	L	mm		15300	15300	12800	12800	13800	13800	10900	10900	10900
	Truck width over drive axle	B	mm		4600	4600	4800	4800	4900	4900	4150	4150	4150
	Spreader sideshift	V1	mm		=+/-450	=+/-450	=+/-450	=+/-450	=+/-450	=+/-450	-	-	-
	Spreader rotation		deg		=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	360 / 360 (endless)[2]	360 / 360 (endless)[2]	360 / 360 (endless)[2]
	Ground clearance	min	mm		300	300	300	300	400	400	250	300	300
	Aisle width with 20'-40' container	A1 - A2	mm		-	-	-	-	-	-	-	-	-
	Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm		-	-	-	-	-	-	-	-	-
	Turning radius, outer (at 90 degree turn)	R1	mm		12450	12450	11400	11400	12450	12450	9400	12450	12450
WHEELS	Wheels	Number of wheels, front – rear (x = driven)			4 – 2		4 – 2				4 – 2		
	Tyres	Pneumatics, type / pressure (front - rear)		MPa	Diagonal / 1.0		Tubeless - Diagonal - E4 / 1.0				Diagonal / 1.0		
		Dimensions, front – rear		tum	21.00×35"		24.00x35"				18.00×25"	18.00×33"	18.00×33"
	Rims	Dimensions, front – rear			15.00x35"/3.0		17.00x35"/3.5				13.00x25"/2.5	13.00x33"/2.5	13.00x33"/2.5
		Track width (front - rear)	S1 - S2	mm	3245 - 3300		3300 - 3300				3030 - 2600	3030 - 2800	3030 - 2800
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / hydraulic power steering / double acting single cylinder		Kalmar steer axle / hydraulic power steering / double acting single cylinder				Kalmar steer axle / hydraulic power steering / double acting single cylinder		
	Drive axle	Manufacturer, type - designation			Kessler D111-P447/PL545 / drive axle with differential and hub reduction		Kessler D111-P447/PL545 / drive axle with differential and hub reduction				Kessler D111-P447/PL545 / drive axle with differential and hub reduction		
	Service brakes	Type – affected wheels			Oil cooled wet disc brakes (WDB) / drive wheels		Oil cooled wet disc brakes (WDB) / drive wheels				Oil cooled wet disc brakes (WDB) / drive wheels		
	Parking brake	Type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels		Single dry disc / spring activated - hydraulic release / drive wheels				Single dry disc / spring activated - hydraulic release / drive wheels		
HYDRAULICS	Hydraulics	System type / pump type			Load-sensing function / power-on-demand / variable piston pumps		Load-sensing function / power-on-demand / variable piston pumps				Load-sensing function / power-on-demand / variable piston pumps		
	Oil pressure	Max working pressure boom / spreader		MPa	23 / 16		23 / 16				23 / 16		
	Tank	Oil volume		Lit	840 (700 + 140)		840 (700 + 140)				740 (600 + 140)		
		Fuel tank, capacity		Lit	580		580				550		
		AdBlue tank, capacity		Lit	35		35				35		

Notes*:

1. Weights and axle loadings are preliminary and are subject to change:
   DRG450-92C5X, DRG450-82C5X, DRG850-82A4X , DRG850-82A4XS, DRG1000-82ZXS DRG1300-92ZXS
2. 360 / 360 (endless) for lifting hook
3. Lift eyes
   DRG850-82A4X 100 - 87 - 68 - 55 - 46 (no jacks)
   DRG850-82A4XS 100 - 100 - 80 - 72 - 60 (with jacks)
   DRG850-92A4X 100 - 92 - 75 - 53 - 39 (no jacks)
   DRG850-92A4XS 100 - 100 - 89 - 68 - 50 (with jacks)

Specifications*

					DRG700-75ZX	DRG700-75ZXS	DRG1000-82ZX	DRG1000-82ZXS	DRG1300-92ZX	DRG1300-92ZXS
LIFT MODEL CAPACITY		Type of handling			Industrial handling		Industrial handling			
		Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3- Q4	tons	70-60-45-30-22	70-60-45-30-22	100 - 100 - 70 - 48 - 36	100 - 100 - 70 - 48 - 36	130 - 125 - 85 - 58 - 43	130 - 125 - 85 - 58 - 43
		Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3- Q4	tons	-	70-60-45-39 -28	-	100 - 100 - 81 - 61 - 46	-	130 - 130 - 90 - 68 - 51
		Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	1500 - 2000 - 4000 - 6000 - 8000		1000 - 2000 - 4000 - 6000 - 8000		1300 - 1700 - 4000 - 6000 - 8000	
		Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	-	-	-	-	-	-
		Lost load centre, to front face of tyres	X	mm	935	935	1100	1100	1100	1100
		Wheelbase	L3	mm	7500	7500	8250	8250	9250	9250
WEIGHTS[1]		Service weight, standard truck		kg	74000	75000	110000	110000	113000	113000
		Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	30600-123300	31600-124300	46200 - 183800	46200 - 183800	46300 - 210100	46300 - 210100
		Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	-	-	-	-	-	-
		Axle load, rear at load centre L4, unloaded - loaded		kg	43400-20700	43400-20700	63800 - 26200	63800 - 26200	66700 - 32900	66700 - 32900
		Axle load, rear at load centre L5, unloaded - loaded		kg	-	-	-	-	-	-
REACHSTACKER DIMENSIONS		Boom angle, min - max		deg	0 - 58	0 - 58	0 - 42	0 - 42	0 - 50	0 - 50
		Boom height, min - max	H3 - H5	mm	4750 - 18400	4750 - 18400	5640 - 16500	5640 - 16500	5640 - 16500	5640 - 16500
		Chassis height - top of boom fixation, max	H2	mm	4050	4050	4400	4400	4400	4400
		Lift height, max	H4	mm	15300	15300	13000	13000	13000	13000
		Boom reach stroke		mm	7000	7000	7000	7000	7000	7000
		Truck height - seat height	H6 - H8	mm	4750 - 2675	4750 - 2675	5640 - 3100	5640 - 3100	5640 - 3100	5640 - 3100
		Overall truck length with boom	L	mm	11900	11900	12500	12500	14150	14150
		Truck width over drive axle	B	mm	4150	4150	4850	4850	4900	4900
		Spreader sideshift	V1	mm	-	-	-	-	-	-
		Spreader rotation		deg	360 / 360 (endless)[2]	360 / 360 (endless)[2]	360 / 360 (endless)[2]	360 / 360 (endless)[2]	360 / 360 (endless)[2]	360 / 360 (endless)[2]
		Ground clearance	min	mm	300	300	300	300	400	400
		Aisle width with 20'-40' container	A1 - A2	mm	-	-	-	-	-	-
		Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	-	-	-	-	-	-
		Turning radius, outer (at 90 degree turn)	R1	mm	9400	9400	11400 - 2900	11400 - 2900	12500 - 3500	12500 - 3500
WHEELS	Wheels	Number of wheels, front – rear (x = driven)			4 – 2		4 – 2			
	Tyres	Pneumatics, type / pressure (front - rear)		MPa	Diagonal / 1.0		Tubeless - Diagonal - E4 / 1.0			
		Dimensions, front – rear		tum	18.00×33"		24.00x35"			
	Rims	Dimensions, front – rear			13.00x33"/2.5		17.00x35"/3.5			
		Track width (front - rear)	S1 - S2	mm	3030 - 2800		3384 - 3300			
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / hydraulic power steering / double acting single cylinder		Kalmar steer axle / hydraulic power steering / double acting single cylinder			
	Drive axle	Manufacturer, type - designation			Kessler D111-P447/PL545 / drive axle with differential and hub reduction		Kessler D111-P447/PL545/ drive axle with differential and hub reduction			
	Service brakes	Type – affected wheels			Oil cooled wet disc brakes (WDB) / drive wheels		Oil cooled wet disc brakes (WDB) / drive wheels			
	Parking brake	Type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels		Single dry disc / spring activated - hydraulic release / drive wheels			
HYDRAULICS	Hydraulics	System type / pump type			Load-sensing function / power-on-demand / variable piston pumps		Load-sensing function / power-on-demand / variable piston pumps			
	Oil pressure	Max working pressure boom / spreader		MPa	23 / 16		23 / 16			
	Tank	Oil volume		Lit	740 (600 + 140)		840 (700 + 140)			
		Fuel tank, capacity		Lit	550		580			
		AdBlue tank, capacity		Lit	35		35			

Notes*:
1. Weights and axle loadings are preliminary and are subject to change:
   DRG450-92C5X, DRG450-82C5X, DRG850-82A4X , DRG850-82A4XS, DRG1000-82ZXS DRG1300-92ZXS
2. 360 / 360 (endless) for lifting hook
3. Lift eyes
   DRG850-82A4X 100 - 87 - 68 - 55 - 46 (no jacks)
   DRG850-82A4XS 100 - 100 - 80 - 72 - 60 (with jacks)
   DRG850-92A4X 100 - 92 - 75 - 53 - 39 (no jacks)
   DRG850-92A4XS 100 - 100 - 89 - 68 - 50 (with jacks)

Barge handler

CombiLift

Lift Hook

Tool Carrier

Drivetrain

			Cummins	Volvo	Volvo	Volvo	Volvo
MODELS	Models						
	Wheelbase	mm	6000 - 7500	6000 - 7500	6000 - 9250	6000 - 7500	6000 - 9250
ENGINES	Drive motor, manufacturer - type designation		QSM-11-C330	TAD-1151-VE	TAD-1152-VE	TAD-1181-VE	TAD-1182-VE
	Fuel types, motor type[1]		Diesel / HVO / 4-stroke	Diesel / HVO / 4-stroke	Diesel / HVO / 4-stroke	Diesel / HVO / 4-stroke	Diesel / HVO / 4-stroke
	Turbo charger / cooling		Turbo (FGT) + Intercooler	Turbo (FGT) + Intercooler	Turbo (FGT) + Intercooler	Turbo (FGT) + Intercooler	Turbo (FGT) + Intercooler
	Engine after treatment type		No AdBlue, DOC, SCR or DPF	No AdBlue, DOC, SCR or DPF	No AdBlue, DOC, SCR or DPF	With AdBlue, DOC and ASC	With AdBlue, DOC and ASC
	Diesel particle filter (DPF)		No DPF	No DPF	No DPF	With DPF	With DPF
	Emission standards		EU stage IIIA / EPA Tier 3	EU stage IIIA / EPA Tier 3	EU stage IIIA / EPA Tier 3	EU stage V / EPA Tier 4-Final	EU stage V / EPA Tier 4-Final
	Rated power / at revs (ISO 3046)	kW / rpm	246 / 2100	265 / 2100	285 / 2100	265 / 2100	285 / 2100
	Peak power / at revs (ISO 3046)	kW / rpm	248 / 1800 - 2000	265 / 1450 - 2100	285 / 1500 - 1900	265 / 1500 - 2100	285 / 1500 - 1900
	Peak torque / at revs (ISO 3046)	Nm / rpm	1674 / 1400	1785 / 1260	1900 / 1100 - 1450	1785 / 1300	1900 / 1100 - 1450
	Number of cylinders / displacement	lit (in2)	6 / 10.800 (660)	6 / 10.840 (661)	6 / 10.840 (661)	6 / 10.840 (661)	6 / 10.840 (661)
	Fuel consumption, normal driving	lit/h	14 - 20	14 - 20	14 - 20	14 - 20	14 - 20
	AdBlue consumption, normal driving[2]	%	-	-	-	4 - 6	4 - 6
TRANSMISSION	Manufacturer's type designation		Dana TE-30500	Dana TE-30500	Dana TE-30500	Dana TE-30500	Dana TE-30500
	Clutch, type		Torque converter	Torque converter	Torque converter	Torque converter	Torque converter
	Transmission, type		Hydrodynamic Powershift	Hydrodynamic Powershift	Hydrodynamic Powershift	Hydrodynamic Powershift	Hydrodynamic Powershift
	Eco Drive Mode (EDM) drivetrain settings[3]		3 modes / Eco, Normal & Power	3 modes / Eco, Normal & Power	3 modes / Eco, Normal & Power	3 modes / Eco, Normal & Power	3 modes / Eco, Normal & Power
	Numbers of gears, forward / reverse	gears	5 / 3	5 / 3	5 / 3	5 / 3	5 / 3
	Alternator, type / power	W	AC / 4200 (28V x 150A)	AC / 4200 (28V x 150A)	AC / 4200 (28V x 150A)	AC / 4200 (28V x 150A)	AC / 4200 (28V x 150A)
	Starting battery, voltage / capacity	V / Ah	2×12 / 145	2×12 / 145	2×12 / 145	2×12 / 145	2×12 / 145

Notes:
1. Regular diesel based on EN590 (ASTM D975 no. 2-D)
   Synthetic / paraffinic diesel based on EN 15940.
2. AdBlue / Diesel Exhaust fluid (DEF) doser unit
   Diesel Oxidation Catalyst (DOC)
   Diesel Particulate Filter (DPF)
   Selective Catalyst Reduction (SCR)
   Ammonia Slip Catalyst (ASR)
3. With Eco Drive Mode (EDM) drivetrain settings included.
   Eco, Normal and Power (various rpms)

Top Lifter

Magnet for thick slabs

Pipe Handler

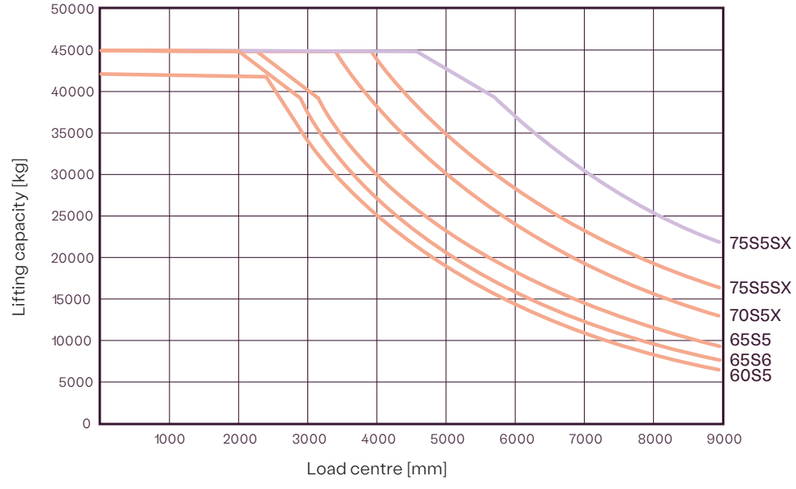
Gripper

Performance

				Container and Intermodal handling		Tool Carrier Handling		Lift Hook Handling	
MODELS	Models								
	Wheelbase			6000 - 7500	8250 - 9250	6000 - 7500	8250 - 9250	6000 - 7500	8250 - 9250
SPEEDS	Travel speed, forward - reverse	Unloaded / at rated load	km/h	28 - 22 / 18 - 16	28 - 21 / 17 - 16	28 - 22 / 18 - 16	28 - 21 / 17 - 16	28 - 5 / 18 - 5	28 - 2 / 17 - 2
	Lifting speed	Unloaded / at 70 % of rated load	m/s	0.42 / 0.25	0.33 / 0.20	0.42 / 0.25	0.33 / 0.20	0.42 / 0.25	0.33 / 0.20
	Lowering speed	Unloaded / At rated load	m/s	0.36 / 0.36	0.46 / 0.33	0.36 / 0.36	0.46 / 0.33	0.36 / 0.36	0.46 / 0.33
POWER	Gradeability, max	Unloaded	%	50	31	50	31	50	31
		At rated load	%	27	-	27	-	27	-
	Gradeability, at 2 km/h	Unloaded	%	38	23	38	23	38	23
		At rated load	%	21	-	21	-	21	-
	Drawbar pull		kN	321	330	321	330	321	330
SOUND	Noise level, inside EGO cabin*	EN12053, LpAZ	dB(A)	66 - 70	66 - 70	66 - 70	66 - 70	66 - 70	66 - 70
	Noise level, outside*	EN12053, LWAZ	dB(A)	105 - 108	107 - 110	106 - 108	107 - 110	106 - 108	107 - 110
	Noise level, outside*	2000/14/EC, LWAZ	dB(A)	107 - 110	107 - 110	107 - 110	107 - 110	107 - 110	107 - 110

Notes*:
• Eco, Normal and Power (various rpms)

Load diagram - Container handling



Kalmar

www.kalmarglobal.com

2024-07-23