



Guaranteed to

CUT COSTS



With our new
eco-efficient solution.



Reduce fuel costs, **LOWER EMISSIONS**

Increasing fuel costs and tougher emissions standards means you need a solution that is lean and green, while still maintaining the highest levels of operational productivity.

The Kalmar Eco Reachstacker provides you with an eco-efficient solution that will have a positive financial impact on your business. It uses up to 40% less fuel than older machines and 25% less than more recent machines, reducing your fuel costs and lowering your emissions significantly while matching the productivity levels of machines with much bigger engines.

Eco-efficiency at work.

Reducing the fuel consumption of your equipment also reduces your emissions, which will enhance your environmental

reputation and help you meet current and future emissions standards. Together we can shape the future of cargo handling, with safe and eco-efficient solutions that improve your every move.

Proven in the field.

Over 150 customers using more than 350 Eco Reachstackers are already benefiting from substantially reduced fuel consumption and CO₂ emissions around the globe, proving that this technology not only delivers on the promised savings but also on performance.

The Kalmar Eco Reachstacker can offer your business:



Up to a 40% reduction in fuel costs and consumption.



A significant reduction in operating noise for your operators and others nearby.



A much smoother drive, which will reduce stress and pressure on your driver's body.



Up to a 40% reduction in CO₂, NO_x, SO_x and particulate emissions.



An ergonomically designed cabin for operational ease.



Match fuel consumption to productivity needs.

Power Mode: when maximum productivity is of the essence. With full engine speeds you will be able to move quickly about the yard, lift and lower at full speed, without compromising on safety.

Normal Mode: for normal productivity and yard operations, you can expect 5-10% lower fuel consumption without compromising on productivity.

Economy Mode: for off-peak or night time operations when productivity is not essential or lower noise levels are required, you can expect 10-20% lower fuel consumption.

Save
5-10%
on fuel consumption

Save
10-20%
on fuel consumption

GUARANTEED

to save you thousands

Knowing exactly what your fuel costs are going to be each month gives you a greater level of financial predictability, which is why Kalmar is offering a Fuel Saving Guarantee with each of its Eco Reachstackers.

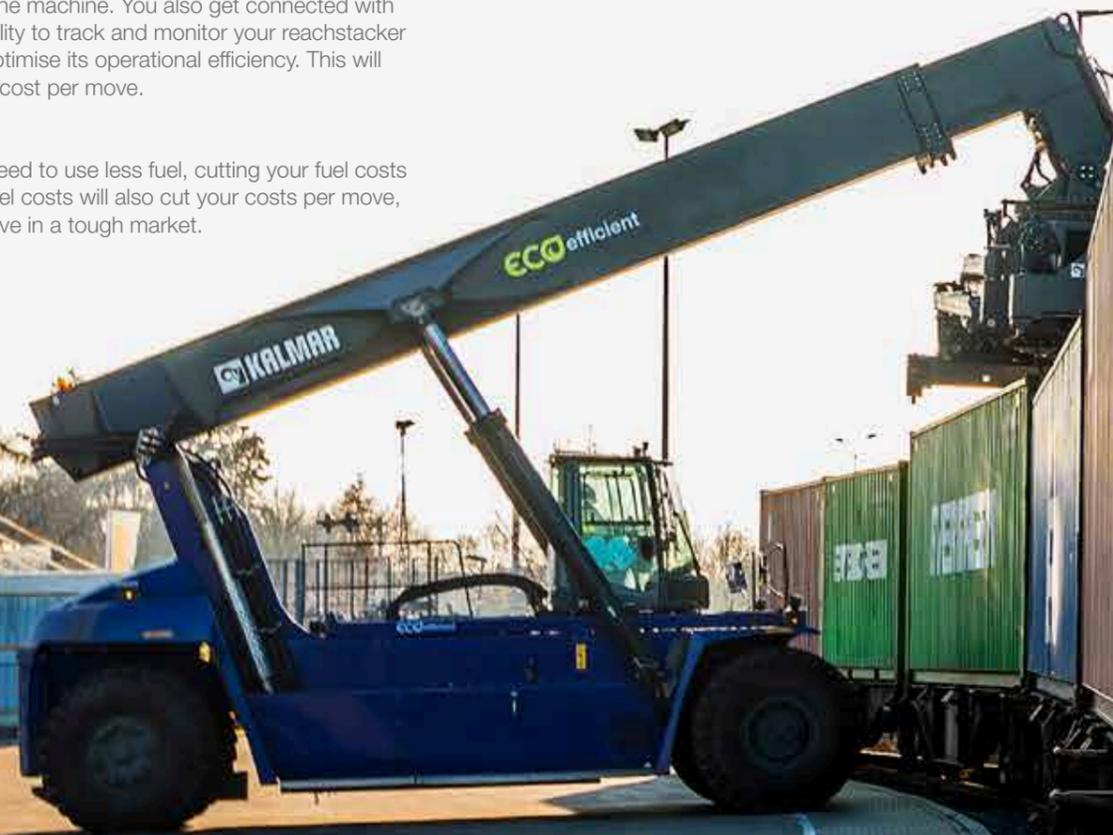
Guaranteed to deliver.

With an agreed and fixed level of fuel consumption, based on a set of agreed metrics, you'll have complete control over your variable fuel costs. Should the fuel usage levels exceed the guaranteed levels of fuel consumption, Kalmar will compensate you for the additional fuel cost with a one off payment.

The fuel saving guarantee also provides your drivers with specialist training so they can get the most out of the machine. You also get connected with Kalmar Insight, giving you the ability to track and monitor your reachstacker and take immediate actions to optimise its operational efficiency. This will substantially help to reduce your cost per move.

Guaranteed to cut costs.

Your Eco Reachstacker is guaranteed to use less fuel, cutting your fuel costs substantially. This reduction in fuel costs will also cut your costs per move, helping you to be more competitive in a tough market.



Based on years of real operational data collected through Kalmar Insight, you can see the clear reduction in fuel costs and emissions between older machines and our new Kalmar Eco Reachstacker.

Kalmar Eco Reachstacker

Typical operating data for 2000 hours of operation.

Litres of fuel **33,270**

Euro **41,587**

Tonnes of CO₂ **89**



Saving you **up to 25%** in fuel costs in comparison to a recent machine.

Saving you **over 40%** in fuel costs in comparison to an older machine.

	5 year old machine	10 year old machine
Litres of fuel	41,068	47,145
Euro	52,334	58,932
Tonnes of CO ₂	110	126

Calculations and assumptions: Fuel consumption data has been collected over a six month period using Kalmar Insight with an Eco Reachstacker, a 5 year old and a 10 year old reachstacker operating normally, with comparable idling time. We have used the following metrics for these calculations: 2000 operating hours per year, fuel at 1.25€ a litre and 2680 grams of CO₂ being produced per litre of fuel used.

Quiet and eco-efficient.

Cabooter Group, currently operate one barge and two rail terminals in the Netherlands and have been a long term partner of Kalmar. They turned to Kalmar first, when they were looking for a solution that was both eco-efficient and would significantly reduce operational noise levels, as their terminals are in built up urban areas.

"We chose the Kalmar Eco Reachstacker as we felt it represented the next big step in product innovation. It provides us with a low emission solution that is also significantly quieter. From the start our fuel consumption dropped from 15.7 to 12.9 l/hr, reducing our costs significantly. Our drivers are extremely excited as it is like driving a new Ferrari, not an old Volkswagen. This is a new generation of reachstackers, that are really good."

Peter Pardoel, Business Development and Operational Excellence. Cabooter Group.



ENHANCED

driving experience

Increased safety and efficiency.

The Kalmar Eco Reachstacker uses a continuous variable transmission which provides smoother transition in shifts, drive stops and direction changes. This allows the operator to drive more precisely, resulting in increased safety levels.

Easier to operate.

Kalmar Eco Reachstackers are much easier to drive than other machines, as their smart programming does a lot of the work for you. Your drivers will no longer need to rev their engines to get the lifting and handling speeds they want, nor will they need to hold the brake pedal continually while lifting and lowering while stationary. This will dramatically reduce the strain and stress on their bodies.

Increased comfort.

Kalmar Eco Reachstackers come fitted with our ergonomically designed EGO cabin. With slim line b-pillars, adjustable seating, steering wheel and control panel, your drivers will benefit from a superior operating environment and visibility. The Kalmar Eco Reachstacker, with its unique driveline, is quieter inside and outside the cabin, and vibrates less than traditional reachstackers, further enhancing driver comfort.

Kalmar Training.

Driving a Kalmar Eco Reachstacker is different than traditional reachstackers and, to get the most out of it, Kalmar Training offers a range of courses for both your technicians and operators. Operators will be shown how to optimise their driving performance and what needs to be checked on the machine every day.

Technicians will be given the knowledge they need to be able to keep your new equipment in top condition. Courses are a mix of theory and hands on experience and can be held at Kalmar or at your site.

When you drive your Kalmar Eco Reachstacker correctly, you will significantly reduce your fuel consumption and emissions by up to **40%.**

REDUCE

your emissions further

HVO100 fuel can reduce the emissions of Kalmar Eco Reachstackers fitted with a certified Stage 3, 4 or 5 Volvo engine by up to 90%, making them one of the most eco-efficient reachstackers on offer today. HVO (Hydrogenated Vegetable Oil) is made from 100% renewable items and is free from any fossil fuels. It is produced by using vegetable oils and animal fats and has a chemical structure similar to diesel fuel. This similarity allows it to be substituted for diesel, without any impact on the efficiency of your driveline but with a big impact on your emissions.

Newell and Wright Group reduce emission by up to 90% with HVO.

"We are always trying to lower our carbon footprint and with our new Kalmar Eco Reachstacker we will be first in the United Kingdom to use HVO100 and reduce the CO₂ emissions by up to 90%."

Stephen Newell, Operations Director at Newell & Wright Group

When you combine the lower fuel consumption and use HVO as a fuel source, the CO₂ emissions from the Eco Reachstacker will be approximately 94% lower than that of older machines, making it the only diesel driven technology that can help ports meet the objective of halving their carbon emissions by 2030.



Eco Reachstacker OPTIONS

Kalmar has an extensive list of options available that can help to improve operational safety or lower your fuel consumption. You choose which are right for you.



Kalmar eco-efficiency options.



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.



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. Active care of your tyres can result in a 10-40% increase in tyre life and up to a 10% decrease in fuel consumption.



Kalmar Speed Limitation System. The Kalmar 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.



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.



Kalmar safety options.



Reverse Warning System (RWS). Knowing what's going on behind you is critical when other personnel are present. Four rear sensors and a reversing camera relay real-time information to an in-cabin display, alerting the driver to any dangers, increasing personnel and driver safety. You can also add additional cameras on the spreaders or on the front of the machine.



Fire Suppression System (FSS). To protect your operator and machine from fire you can fit a FSS 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.



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



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:

- 2 or 4 on the front mud guards
- 2, 4 or 6 on the lift boom
- 2 or 4 on the spreader
- 2 more on rear counter weight.

More CHOICE

Handle bulk materials with ease.

Our range of Eco Reachstackers can be fitted with a tilting spreader that allows you to handle containerised bulk materials easily. With the ability to tilt lengthways or sideways up to 55 degrees and to shake the contents of 20, 30 or 40ft containers free, you will be able to handle bulk materials quickly and efficiently. Kalmar's tilting spreader is also able to open either the side door or the top hatch to ready the container for emptying. The Kalmar Eco Reachstacker can handle loads up to 32 tonnes in tilt mode and 45 tonnes in standard lifting mode when fitted with one of our special tilting spreaders.

Kalmar Load Measurement Solution

The Kalmar load measurement solution automatically weighs the load your equipment is handling. This information is registered so you can monitor and review each load, overloading or load distribution. The solution will save you time as the container is weighed while it is being moved and you can reduce paper work as this solution can automatically update other connected systems.

The Kalmar Load Measurement Solution records the Verified Gross Mass (VGM) of any load your equipment is handling, giving you the ability to monitor and review individual or batched loads and identify any overloading. This information is then available in several different ways, depending on your chosen solution: via your TOS, Kalmar Insight or as a stand-alone solution with printer. The accurate and reliable weighing of containers is an important part of safety at sea and is a mandatory requirement of the new SOLAS global weighing standards, from July 2016. The Kalmar load measurement solution is compliant with the SOLAS global standards.



SUPPORT

when and where you need it

Our job doesn't stop once we deliver your new Eco reachstacker. We can also offer a range of support services that help keep your new equipment running at its optimal best. With a global network of over 1500 service and support staff, in more than 100 countries we will always have someone nearby to give you the support you need.

Kalmar Care, making sure your business never stops.

We offer a range of flexible service contracts, which are designed to help you improve your operational efficiency, productivity and financial predictability. You just need to choose what is right for you and your day-to-day operations.

Kalmar Insight. Turning data into actionable, impactful insights.

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. This information is then accessed through an easy to use interface that is available on mobile, tablet or more traditional screens.

You can review your entire fleet activities, schedule maintenance 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, and can be retrofitted into existing Kalmar equipment or those built by other manufacturers.



Financing options.

You may choose to buy your new reachstacker outright or consider leasing or renting your equipment. Kalmar offers a range of leasing and renting options that can give you the financial predictability you need and the option to upgrade your equipment after a fixed period. With our leasing packages you can focus on your core operations, while we perform all your service and maintenance needs required by your fleet. You just need to choose which leasing package and level of service and maintenance support is right for your business. Kalmar can also look at you trading-in your old equipment.

No matter what your service and support needs are, make sure that you speak to your local Kalmar team first.

When the right part matters.

When something needs to be replaced you need a spare part that meets your exact needs – urgently. Kalmar offers a rapid delivery service for over 50,000 premium quality genuine parts to anywhere in the world, with installation support if needed.

You may also want to consider outsourcing all or part of your spare parts management and inventory control, with Kalmar Parts Care you can do just that. Kalmar Parts Care can make sure that critical spare parts are always on hand so your equipment downtime is kept at a minimum. Each Kalmar Parts Care plan is based on your individual needs, so talk to us today and see how we can lift your parts availability, while reducing your inventory costs.

Kalmar MyParts.

To make life easier you can now purchase Kalmar Genuine Parts on-line at MyKalmar. With 100s of thousands of parts in stock at any given time we can deliver them to you quickly, no matter where you are the world. Kalmar MyParts is easy to use and allows you to search for exactly the right part from your machine's individual catalogue or by the part number. There are also customised maintenance and service kits available that bundle together everything you need for your regular service activities based on your equipment operating hours.

To take advantage of everything that Kalmar MyParts has to offer - speak to your local Kalmar support team and join the growing community of 1000s of users from over 100 countries.

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

STANDARD

Kalmar DRG 420S-450SE (S = Container - Top Lift)
Kalmar DRG 450C-450CE (C = Intermodal - Combi Lift)
Kalmar DRG 500A-600AE (A = Industrial - Tool Carrier)
Kalmar DRG 570Z-700ZE (Z = Industrial - Lift Hook)

Norms, Standards and Regulations

- Machinery Directive 2006/42/EC
- Safety Variable Reach Trucks EN 1459+A3
- Safety Low & High Lift Trucks ANSI/ B56.1
- Stability Variable Reach Trucks EN 1459+A3
- CE-marking for trucks within EU/EEA
- ANSI/ITSDF-marking for North America trucks

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
- Rear view mirrors (2x) - rear on front mudguards
- Strong and protective mudguards (front & rear)
- Basic noise insulation for the complete 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 & Rims)

- Drive and steer tyres 18.00x25"/PR40 (6x)
- Drive and steer tyres 18.00x33"/PR36 (6x), for stronger models with higher lift capacity

Drive Train

- Volvo D8 in EU stage 3A (EPA Tier 3)
- Volvo D8 in EU stage 4 (EPA Tier 4 Final)
- Volvo D8 in EU stage 5
- 6-cylinder diesel engines with pre-heater, displacement 7,70 Lit
- High power & torque with low fuel consumption
- Engine monitoring and protection system
- Automatic CVT transmission, DRTS R2-RS
- Hydrostatic slow-speed / mechanical high-speed
- Seamless speed shifting and soft directional shifting (FWD - REV)
- Transmission monitoring and reverse protection
- Heavy-duty radiators for engine, transmission, brakes & hydraulics
- Auto stop function, engine shut down after 10 sec, when P-brake is on.

Load-Sensing Hydraulics

- Load-sensing lift hydraulics, spreader and steering, with 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 by-pass (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

- S = Top Lift, 45 tons, 20'-40', MPS, TWL + 4 lift hooks
- C = Combi Lift, 45 tons, 20'-30'-40', HPS, TWL, lift legs, 4 lift hooks, length tilt & tilt lock
- A = Tool Carrier, max 65 tons, MPS, TWL (2,5x0,76 m) & 4 lift eyes
- Z = Lift Hook, max 70 tons, dual hook, free rotation & 4 lift eyes
- S-C-A = 4 floating twistlocks, LED indication lamps & 4 LED work lamps
- S-C-A = Safety locking, alignment pins (4x) & sensors (4x)
- S-C-A = Rotation +195/-105 deg (2 motors & 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 best 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

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, very powerful cooler, heater and ventilator, incl programmable settings.
- Air-condition incl. fresh air and recirculation filter
- Wipers/washers on front, 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
- Longitudinal Load Moment Indicator (Pop-Up Menu)
- Longitudinal Load Moment Control (Pop-Up Menu)

ECO Drive Modes (EDM)

- Power mode
- Normal mode (default)
- Eco mode

Coasting Deceleration Mode (CDM)

- Soft braking
- Medium braking (default)

Operator menu:

- System voltage
- Engine rpm
- Travelling speed (km/h or m/h)
- Hydraulic oil temperature
- Transmission oil temperature
- Engine oil pressure & coolant level
- Engine oil level
- Clock and date
- Load & Load distance (LC)
- 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
- Spare parts catalogue

OPTIONS

Kalmar DRG 420S-450SE (S = Container - Top Lift)
Kalmar DRG 450C-450CE (C = Intermodal - Combi Lift)
Kalmar DRG 500A-600AE (A = Industrial - Tool Carrier)
Kalmar DRG 570Z-700ZE (Z = Industrial - Lift Hook)

Chassis

- DRG range in Toplift (S), Intermodal (C) and Industrial handlings (A + Z)
- Wheelbases in 6,0 - 7,5 m
- Duplex 2-stage booms for S+C+A+Z (H4 = 13,0-17,8 m)

Body

- Anti slip protection on fenders and tanks
- Mud flaps (front or/and rear)
- External rear view mirrors (2x)
- Noise insulation kit for the complete truck

Steer Axle (Rear)

- Steer cylinder space 14 mm (plus 0,50 m radius)

Wheels (Tyres & Rims)

- Spare wheel and rim 18.00x25"/PR40 (6x)
- Spare wheel and rim 18.00x33"/PR36 (6x), for stronger models with higher lift capacity

Drive train

- Volvo TAD-853-VE, 6-inline, 235 kW, 1310 Nm (EU 3A / EPA Tier 3)
- Volvo TAD-873-VE, 6-inline, 235 kW, 1310 Nm (EU 4 / EPA Tier 4F)
- Volvo TAD-883-VE, 6-inline, 235 kW, 1310 Nm (EU 5)
- Auto Start/Stop function to save fuel
- Automatic engine and ignition stop at idle
- Pre-cleaner air intake incl raised air intake
- Various programmable speed limitations

Load-Sensing Hydraulics

- High pressure filter

Lifting boom

- Duplex 2-stage S5 (5/5, H4 = 15,1-15,2 m)
- Duplex 2-stage S6 (6/5, H4 = 16,1-16,2 m)
- Duplex 2-stage S6H (6/6, H4 = 17,7-17,8 m)
- Duplex 2-stage C5 (5/5, H4 = 14,9-15,0 m)
- Duplex 2-stage A5 (5/5, H4 = 15,0-15,1 m)
- Duplex 2-stage Z (-/-, H4 = 13,0 m)

Attachment

- Tilt function ±5 deg (FWD/REV), incl tilt lock & speed limit 5 km/h
- Hydraulics Pile Slope HPS ±5 deg (side tilt), incl tilt lock & speed limit 5 km/h
- Rotations stop spreader at ±25 deg (incl override switch)
- Automatic extension 20'-40' incl 30' stop
- Overhigh folding legs OFL = 1600 or 2000 mm (integral)
- Boom nose extension L = 1000 or 1600 mm
- Long boom nose, extension = 1600 mm
- 2 extra lift eyes in centre of spreader (2 x 22,5 ton)
- 4 extra lift eyes in middle part of spreader (4 x 11,25 ton)
- Soft landing with ultrasonic sensor
- Twistlock beam rubber damper, 100 mm extension (noise reduction)
- Extended twistlocks 300 mm
- Bulk handling spreader for 0-55 degrees sideways tilt (20' -40')
- Bulk handling spreader for 0-55 degrees length-ways tilt (20')
- Side door opener for tilting spreader
- Hatch door opener for tilting spreader

- Container shaker function for tilting spreader
- Coil ram sub frame, STD, 35 tons, ID / OD = 500 / 3000 mm
- Coil ram sub frame, Tool Carrier, 35 tons, ID / OD = 500 / 3000 mm

Electrical System 24V

- Radio with CD/MP3/BT
- Extra sockets 2x24V + 2x12V in cabin door columns
- Extra sockets 2x24V + 2x5V USB's in cabin door columns
- Electric air pressure horn
- Height limitation system for lifting boom
- Load centre limitation for lifting boom
- Speed limitation, please specify km/h
- Container lights, LED 4x, on front mudguards
- Extra working light, LED 2x, on spreader
- Extra working light, LED 2x, on boom
- Electric heated mirrors, front fender/std pos
- Electric heated & adjustable mirrors, front fenders/std pos
- TV-camera with monitor in cab direction rearward (6-7 m)
- Reverse warning system, incl. 4x sensors, TV-camera & monitor
- Tyre pressure monitoring system (Bluetooth)
- Cabin heater incl 220V outlet
- Diesel powered cabin heater 5 kW
- Alcolock Draeger in cabin

Cabin

Structure

- Hydraulic sliding cabin (stroke 2375 mm), anti-collision function, avoid container / trailer to hit cabin in front position
- Speed limitation depending on cabin position
- Hydraulic elevating cab (stroke 2300 mm)

Comfort

- Seat with air-cushion, heating & 3-point belt
- Head rest for the seat
- Armrest with adjustment (LHS)
- Horizontal dampening/suspension of seat
- Extra trainer seat incl 2-point safety belt (LHS)
- Bracket for terminal and monitor (RHS)
- Writing pad, A4 paper box and reading lamp (RHS)

Controls

- Lever steering incl switch for forward/reverse
- Mini-wheel steering incl switch for forward/ reverse
- Essential joystick - Elobau
- G-Generation joystick - EGO
- F-Generation joystick - Cobra

Climate

- Sun visor front-roof-rear windows (of black net)
- Sun visor roof window (of reflecting film)
- Microfilter in additional to std filter
- AC/ECC switched off when door is open
- Post-heating (break heater function)

Additional Equipment

- Enhanced Safety Package including:
 - Speed limitation outside transport mode
 - Reverse warning system including sensors, camera and displays in cab
 - Tire pressure monitoring system in cab HMI
 - Adjustable speed limiter (default 15 km/h)
 - Seat belt interlock, will not go in gear unless seatbelt is on
- Semi-automatic fire suppression system
- Fire extinguisher 6 kg, powder
- Tool kit

- Extra sound insulation - reduction 3 dB(A)
- Lockable fuel cap
- Central greasing (base truck / spreader)
- Filter kit 2000 hrs

Fleet Management

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

Fuel Saving Guarantee (see pp 4-5)

- Kalmar Insight 3 year licence
- Guaranteed level of fuel consumption
- Eco Reachstacker driver training
- Kalmar Speed Limitation System
- Automatic engine stop when idling

Kalmar Load Measurement System

- Automatically measures and records equipment load
- SOLAS compliant

Colour

- Other colour than standard, chassis
- 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

Training

- Eco Reachstacker driver training
- Contact Kalmar Training Centre for training programs

DRIVELINES

Eco Reachstacker

Engine emission approvals		EU3 / Tier 3	EU4 / Tier 4F	EU5
Engine emission brand / series		Volvo D8	Volvo D8	Volvo D8
Engine model		TAD-853-VE	TAD-873-VE	TAD-883-VE
Engine after treatment type		No SCR / AdBlue	With SCR / AdBlue	With SCR / AdBlue
		No particle filter	No particle filter	With particle filter
Engine fuel / type		Diesel / 4-stroke	Diesel / 4-stroke	Diesel / 4-stroke
Engine design / cylinders		6-inline / common rail	6-inline / common rail	6-inline / common rail
Engine displacement	(dm ³)	7.70	7.70	7.70
Max power	(kW)	235	235	235
Max torque	(Nm)	1310	1310	1310
Fuel consumption – average diesel	(l/h)	10–15	10–15	10–15
Fuel consumption – average AdBlue	(%)	-	1 - 5	3 - 7
Transmission model		Dana Rexroth R2-RS		
Transmission gear shift type		Hydrostatic + Mechanical (power split)		
Transmission clutch type		CVT (Continuous Variable Transmission)		
Transmission speed range (FWD - REV)		3 - 2		
Drive axle brand / series		Kessler D-102 (WDB)		
Service brake / cooling		Wet Disc Brakes with oil cooling		
Alternator, power	(W)	AC, 3640 (28 x 130)	AC, 3640 (28 x 130)	AC, 3640 (28 x 130)

Attachments.

There are a range of attachments that can be fitted onto your reachstacker, which one depends of your handling needs.



Container Handling - Top Lift



Intermodal Handling - Top Lift and Trailer Lift



Industrial Handling - Tool Carrier



Industrial Handling - Lift Hook



Industrial Handling - Tilting Spreader



Industrial Handling - Coil Hook



CONTAINER HANDLING

			DRG420-60S5E	DRG450-60S5E	DRG450-60S5ME	DRG450-60S5XE	DRG450-65S5E	DRG450-65S5XE	DRG450-65S5XSE	DRG450-65S6E	DRG450-65S6XE
MAIN DATA	Type of handling		Container handling			Container handling					
	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3 - Q4 (tons)	42 - 25 - 12	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
	Lift capacity, row 1-2-3-4 (including jacks)	Q1 - Q2 - Q3 - Q4 (tons)	-	-	-	-	-	-	45 - 41 - 29	-	-
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		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
	Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7 (mm)	1965 - 3815 - 6315	1965 - 3815 - 6315	1965 - 3815 - 6315	1865 - 3815 - 6315	1965 - 3815 - 6315	1865 - 3815 - 6315	1865 - 3815 - 6315	2265 - 3815 - 6315 - 8815	2165 - 3815 - 6315 - 8815
	Lost load centre, to front face of tyres	X (mm)	835	835	835	935	835	935	935	835	935
Wheelbase	L3 (mm)	6000			6000	6500	6500	6500	6500	6500	
WEIGHTS	Service weight, standard truck	(kgs)	65500	67400	69400	77500	69500	77300	80300	70500	77500
	Axle load, front at load centre L4, unloaded - loaded	(kgs)	34500 - 96100	34600 - 100600	34600 - 100600	35600 - 101600	35000 - 99400	36000 - 100400	38500 - 102900	36000 - 102500	36500 - 103000
	Axle load, front at load centre L5, unloaded - loaded	(kgs)	38900 - 83300	39000 - 86900	39000 - 92200	40200 - 102900	39000 - 939000	40300 - 106000	42800 - 108600	39500 - 94400	40200 - 105900
	Axle load, rear at load centre L4, unloaded - loaded	(kgs)	31000 - 11400	32800 - 11800	34800 - 13800	41900 - 20900	34500 - 15100	41300 - 21900	41800 - 22400	34500 - 13000	41000 - 19500
	Axle load, rear at load centre L5, unloaded - loaded	(kgs)	26600 - 7200	28400 - 7500	30400 - 7200	37300 - 9600	30500 - 7600	37100 - 9300	37500 - 9700	31000 - 8100	37300 - 9600
WHEELS	Tyres, dimension, PLY rating, star rating ¹		18 x 25", PR40, E4			18 x 33", PR36, E4	18 x 25", PR40, E4	18 x 33", PR36, E4	18 x 33", PR36, E4	18 x 25", PR40, E4	18 x 25", PR36, E4
	Tyre pressure (front - rear)	(MPa)	1,0 / 1,0			1,0 / 1,0					
	Track width (front - rear)	S1 - S2 (mm)	3030 - 2600			3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2600	3030 - 2800
DIMENSIONS	Boom angle, min - max	(deg)	0 - 60			0 - 60	0 - 60	0 - 60	0 - 60	0 - 62	0 - 63
	Boom height, min - max	H3 - H5 (mm)	4600 - 18200			4700 - 18300	4600 - 18200	4700 - 18300	4700 - 18300	4500 - 19250	4600 - 19350
	Chassis height - top of boom fixation, max	H2 (mm)	3925			4025	3925	4025	4025	3925	4025
	Lift height, min-max in twistlocks, row 1	H4 (mm)	15100			15200	15100	15200	15100	16200	16300
	Boom reach stroke	(mm)	7000			7000	7000	7000	7000	7700	7700
	Truck height - seat height	H6 - H8 (mm)	4600 - 2575			4700 - 2675	4600 - 2575	4700 - 2675	4700 - 2575	4500 - 2575	4600 - 2675
	Overall truck length, without - with boom	L (mm)	11200			11200	11700	11700	11700	12000	12000
	Truck width over drive axle	B (mm)	4150			4150					
	Spreader sideshift	V1 (mm)	+/-800 (1600)			+/-800 (1600)					
	Spreader rotation	(deg)	+195/-105			+195/-105					
	Ground clearance	(mm)	250			300	250	300	300	250	300
	Aisle width with 20'-40' container	A1 - A2 (mm)	11200 - 13600			11200 - 13600	11600 - 13600	11600 - 13600	11600 - 13600	11900 - 13900	11900 - 13900
Turning radius, outer with 20'-40' container	R1 - R3 (mm)	8100 - 9400			8100 - 9400	8500 - 9400	8500 - 9400	8500 - 9400	8500 - 9450	8500 - 9450	
DRIVE LINE	Travel speed, fw unloaded - rated load / rw unloaded - rated load, max	(km/h)	28 - 22 / 18 - 18			28 - 22 / 18 - 18					
	Lifting speed, unloaded - 70% of rated load	(m/s)	0,42 - 0,25			0,42 - 0,25					
	Lowering speed, unloaded - rated load	(m/s)	0,36 - 0,36			0,36 - 0,36					
	Drawbar pull / towing capacity, max	(kN)	250			250					
OTHER	Tank volumes of working oil & brake oil	(l)	740 (600 + 140)			740 (600 + 140)					
	Working pressure boom/spreader, max	(MPa)	23 / 16			23 / 16					
	Noise level LpAZ (EN12053), inside cabin ²	(dB(A))	68 - 70			68 - 70					
	Noise level LpAZ (2000/14/EC), outside cabin ²	(dB(A))	103 - 106			103 - 106					

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

CONTAINER HANDLING

			DRG450-65S6HE	DRG450-65S6HXE	DRG450-65S6HXSE	DRG450-70S5XE	DRG450-70S5XSE	DRG450-70S6HXSE	DRG450-75S5XSE	DRG450-75S6HXSE
MAIN DATA	Type of handling		Container handling							
	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3 - Q4 (tons)	45 - 33 - 18 - 10	45 - 39 - 21 - 13	45 - 39 - 21 - 13	45 - 41 - 23	45 - 41 - 23	45 - 41 - 23 - 14	45 - 45 - 26	45 - 45 - 27 - 17
	Lift capacity, row 1-2-3-4 (including jacks)	Q1 - Q2 - Q3 - Q4 (tons)	-	-	45 - 41 - 29 - 18	-	45 - 41 - 31	45 - 41 - 31 - 19	45 - 45 - 34	45 - 45 - 35 - 23
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		6/6 - 6/5 - 5/4 - 4/3	6/6 - 6/5 - 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 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3
	Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7 (mm)	2965 - 3815 - 6315 - 8815	2865 - 3815 - 6315 - 8815	2865 - 3815 - 6315 - 8815	1865 - 3815 - 6315		2865 - 3815 - 6315 - 8815	1865 - 3815 - 6315	2865 - 3815 - 6315 - 8815
	Lost load centre, to front face of tyres	X (mm)	835	935	935	935				
Wheelbase	L3 (mm)	6500			7000	7000	7000	7500	7500	
WEIGHTS	Service weight, standard truck	(kgs)	73500	82500	83500	78800	80300	84400	82400	86400
	Axle load, front at load centre L4, unloaded - loaded	(kgs)	39000 - 110300	41500 - 112800	42500 - 113800	37500 - 100500	39000 - 102000	42600 - 112000	40000 - 101800	43900 - 111700
	Axle load, front at load centre L5, unloaded - loaded	(kgs)	41000 - 97600	43800 - 111300	44800 - 112300	41500 - 110300	43000 - 111800	44700 - 113500	43800 - 117300	46000 - 119500
	Axle load, rear at load centre L4, unloaded - loaded	(kgs)	34500 - 8200	41000 - 14700	41000 - 14700	41300 - 23300	41300 - 23300	41800 - 17400	42400 - 25600	43300 - 20500
	Axle load, rear at load centre L5, unloaded - loaded	(kgs)	32500 - 8900	38700 - 10200	38700 - 10200	37300 - 9500	37300 - 9500	39700 - 11900	38600 - 10100	41300 - 12800
WHEELS	Tyres, dimension, PLY rating, star rating ¹		18 x 25", PR40, E4	18 x 33", PR36, E4	18 x 33", PR36, E4	18x33",PR36/E4				
	Tyre pressure (front - rear)	(MPa)	1,0 - 1,0			1,0 - 1,0				
	Track width (front - rear)	S1 - S2 (mm)	3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2800				
DIMENSIONS	Boom angle, min - max	(deg)	0 - 62	0 - 62	0 - 63	0 - 60	0 - 60	0 - 63	0 - 58	0 - 61
	Boom height, min - max	H3 - H5 (mm)	4600 - 20800	4700 - 20900	4700 - 20900	4700 - 18300	4700 - 18300	4700 - 20900	4750 - 18400	4750 - 21000
	Chassis height - top of boom fixation, max	H2 (mm)	3925	4025	4025	4025				
	Lift height, min-max in twistlocks, row 1	H4 (mm)	17700	17800	17800	15100	15100	17800	15200	17800
	Boom reach stroke	(mm)	8500			7000	7000	8500	7000	8500
	Truck height - seat height	H6 - H8 (mm)	4600 - 2575	4700 - 2675	4700 - 2675	2675				
	Overall truck length, without - with boom	L (mm)	12700			12200	12200	13200	12700	13700
	Truck width over drive axle	B (mm)	4150			4150				
	Spreader sideshift	V1 (mm)	+/-800 (1600)			+/-800 (1600)				
	Spreader rotation	(deg)	+195/-105			+195/-105				
	Ground clearance	(mm)	250	300	300	300				
	Aisle width with 20'-40' container	A1 - A2 (mm)	12200 - 14200	12200 - 14200	12200 - 14200	12100 - 13600	12100 - 13600	12700 - 14200	12500 - 13600	13100 - 14200
Turning radius, outer with 20'-40' container	R1 - R3 (mm)	8500 - 9450	8500 - 9450	8500 - 9450	9000 - 9400	9000 - 9400	9000 - 9450	9400 - 9400	9400 - 9450	
DRIVE LINE	Travel speed, fw unloaded - rated load / rw unloaded - rated load, max	(km/h)	28 - 22 / 18 - 18			28 - 22 / 18 - 18				
	Lifting speed, unloaded - 70% of rated load	(m/s)	0,42 - 0,25			0,42 - 0,25				
	Lowering speed, unloaded - rated load	(m/s)	0,36 - 0,36			0,36 - 0,36				
	Drawbar pull / towing capacity, max	(kN)	250			250				
OTHER	Tank volumes of working oil & brake oil	(l)	740 (600 + 140)			740 (600 + 140)				
	Working pressure boom/spreader, max	(MPa)	23 / 16			23 / 16				
	Noise level LpAZ (EN12053), inside cabin ²	(dB(A))	68 - 70			68 - 70				
	Noise level LpAZ (2000/14/EC), outside cabin ²	(dB(A))	103 - 106			103 - 106				

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

INTERMODAL HANDLING

			DRG450-60C5E	DRG450-60C5XE	DRG450-65C5E	DRG450-65C5XE	DRG450-65C5XSE	DRG450-70C5XE	DRG450-70C5XSE	DRG450-75C5XSE
MAIN DATA	Type of handling		Intermodal handling		Intermodal handling					
	Lift capacity, row 1-2-3 / load center L4-L8 ¹	Q1 - Q2 - Q3 - Q4 - Q5 (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
	Lift capacity, row 1-2-3 / load center L4-L8 ¹	Q1 - Q2 - Q3 - Q4 - Q5 (tons)	-	-	-	-	45 - 38 - 24	-	45 - 38 - 27	45 - 45 - 32
	Stacking capacity, in container row 1-2-3 of 8'6" / 9'6"		5/5 - 5/4 - 4/3		5/5 - 5/4 - 4/3					
	Load centre, from front face of tyres	L4 - L5 - L6 - L7 - L8 including jacks (mm)	1965 - 3815 - 6315	1865 - 3815 - 6315	1965 - 3815 - 6315	1865 - 3815 - 6315	1865 - 3815 - 6315	1865 - 3815 - 6315	2765 - 3915 - 6415 - 8915	2765 - 3915 - 6415 - 8915
	Lost load centre, to front face of tyres	X (mm)	835	935	835	935	935	935	935	935
Wheelbase	L3 (mm)	6000	6000	6500	6500	6500	7000	7000	7500	
WEIGHTS	Service weight, standard truck	(kgs)	73500	81800	74100	81300	83500	83300	84800	88400
	Axle load, front at load centre L4, unloaded - loaded	(kgs)	41000 - 107000	42000 - 108000	41600 - 106000	42400 - 106800	44500 - 108900	43500 - 106500	45000 - 108000	46000 - 107800
	Axle load, front at load centre L5, unloaded - loaded	(kgs)	46700 - 91100	48000 - 105400	46900 - 94900	48000 - 106800	50200 - 109000	48800 - 112600	50300 - 114100	51000 - 121200
	Axle load, rear at load centre L4, unloaded - loaded	(kgs)	32500 - 11500	39800 - 18800	35200 - 13100	38900 - 19500	39000 - 19600	39800 - 21800	39800 - 21800	42400 - 25600
	Axle load, rear at load centre L5, unloaded - loaded	(kgs)	26800 - 7400	33800 - 8400	27200 - 7200	33300 - 8500	33300 - 8500	34500 - 8700	34500 - 8700	37400 - 10200
WHEELS	Tyres, dimension, PLY rating, star rating ²		18 x 25", PR40, E4	18 x 33", PR36, E4	18 x 25", PR40, E4	18 x 33", PR36, E4	18 x 33", PR36, E4	18x33",PR40/E4	18x33",PR40/E4	18x33",PR40/E4
	Tyre pressure (front - rear)	(MPa)	1,0 / 1,0		1,0 / 1,0					
	Track width (front - rear)	S1 - S2 (mm)	3030 - 2600	3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2800
DIMENSIONS	Boom angle, min - max	(deg)	0 - 60		0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 58
	Boom height, min - max	H3 - H5 (mm)	4600 - 18200	4700 - 18300	4600 - 18200	4700 - 18300	4700 - 18300	4700 - 18300	4700 - 18300	4750 - 18400
	Chassis height - top of boom fixation, max	H2 (mm)	3925	4025	3925	4025	4025	4025	4025	4025
	Lift height, min-max in twistlocks, row 1	H4 (mm)	14900	15000	14900	15000	14900	14900	14900	15000
	Boom reach stroke	(mm)	7000					7000	7000	7000
	Truck height - seat height	H6 - H8 (mm)	4600 - 2575	4700 - 2675	4600 - 2575	4700 - 2675	4700 - 2675	2675	2675	2675
	Overall truck length, without - with boom	L (mm)	11200	11200	11700	11700	11700	12200	12200	12700
	Truck width over drive axle	B (mm)	4150		4150					
	Spreader sideshift	V1 (mm)	+/-800 (1600)		+/-800 (1600)					
	Spreader rotation	(deg)	+195 / -105		+195 / -105					
	Ground clearance	(mm)	250	300	250	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	
Turning radius, outer with 20'-40' container	R1 - R3 (mm)	8100 - 9400	8100 - 9400	8500 - 9400	8500 - 9400	8500 - 9400	9000 - 9400	9000 - 9400	9400 - 9400	
DRIVE LINE	Travel speed, fw unloaded - rated load / rw unloaded - rated load, max	(km/h)	28 - 22 / 18 - 18		28-22 / 18-16					
	Lifting speed, unloaded - 70% of rated load	(m/s)	0,42 - 0,25		0,42 - 0,25					
	Lowering speed, unloaded - rated load	(m/s)	0,36 - 0,36		0,36 - 0,36					
	Drawbar pull / towing capacity, max	(kN)	250		250					
OTHER	Tank volumes of working oil & brake oil	(l)	740 (600 + 140)		740 (600 + 140)					
	Working pressure boom/spreader, max	(MPa)	23 / 16		23 / 16					
	Noise level LpAZ (EN12053), inside cabin ³	(dB(A))	68 - 70		68 - 70					
	Noise level LpAZ (2000/14/EC), outside cabin ³	(dB(A))	103 - 106		103 - 106					

1. Rows for Intermodal handling / Load center for Industrial handling
2. 4 + 2 pneumatic / diagonal tyres
3. Depending on ECO Drive Mode setting

INDUSTRIAL HANDLING

		DRG500-60A5E	DRG540-60A5XE	DRG540-65A5XE	DRG540-65A5XSE	DRG600-75A5XE	DRG600-75A5XSE	DRG570-65ZE	DRG600-65ZXE	DRG600-65ZXSE	DRG700-75ZXE	DRG700-75ZXSE	
MAIN DATA	Type of handling	Tool carrier			Tool carrier			Lifting hook					
	Lift capacity, row 1-2-3 / load center L4-L8 ¹	Q1 - Q2 - Q3 - Q4 - Q5 (tons)	50 - 27 - 16 - 11	54 - 33 - 20 - 14	54 - 38 - 25 - 17	54-38-25-17	60-45-29-21	60-45-29-21	57-54-31-19-14	60-60-38-25-18	60-60-38-25-18	70-60-45-30-22	70-60-45-30-22
	Lift capacity, row 1-2-3 / load center L4-L8 ¹	Q1 - Q2 - Q3 - Q4 - Q5 (tons)	-	-	-	54-45-34-23	-	60-50-38-27	-	-	60-60-45-34-24	-	70-60-50-39-28
	Stacking capacity, in container row 1-2-3 of 8'6" / 9'6"		-			-			-				
	Load centre, from front face of tyres	L4 - L5 - L6 - L7 - L8 including jacks (mm)	2000 - 4000 - 6000 - 8000 - 10000			2000 - 4000 - 6000 - 8000 - 10000			1500 - 2000 - 4000 - 6000 - 8000				
	Lost load centre, to front face of tyres	X (mm)	835	935	935	935			835	935	935	935	935
Wheelbase	L3 (mm)	6000	6000	6500	6500	7500	7500	6500	6500	6500	7500	7500	
WEIGHTS	Service weight, standard truck	(kgs)	63000	72600	74000	76200	77000	78000	61100	70900	72100	74000	75000
	Axle load, front at load centre L4, unloaded - loaded	(kgs)	29500 - 102800	29600 - 108800	31000 - 109600	33200 - 111800	34200-118700	35200-118700	26000 - 103500	27300 - 114600	28300 - 115600	30600-123300	31600-124300
	Axle load, front at load centre L5, unloaded - loaded	(kgs)	-			-			-				
	Axle load, rear at load centre L4, unloaded - loaded	(kgs)	33500 - 10200	43000 - 16300	43000 -18400	43000 -18400	42800-19300	42800-19300	35100 - 14600	43600 - 16300	43600 - 16300	43400-20700	43400-20700
	Axle load, rear at load centre L5, unloaded - loaded	(kgs)	-			-			-				
WHEELS	Tyres, dimension, PLY rating, star rating ²		18 x 25", PR40, E4	18 x 33", PR36, E4	18 x 33", PR36, E4	18 x 33", PR36, E4			18 x 25", PR40, E4	18 x 33", PR36, E4	18 x 33", PR36, E4	18x33",PR36/E4	18x33",PR36/E4
	Tyre pressure (front - rear)	(MPa)	1,0 / 1,0			1,0 / 1,0			1,0 / 1,0				
	Track width (front - rear)	S1 - S2 (mm)	3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2800	3030 - 2800
DIMENSIONS	Boom angle, min - max	(deg)	0 - 60			0 - 60	0 - 58	0 - 58	0 - 60			0 - 58	0 - 58
	Boom height, min - max	H3 - H5 (mm)	4600 - 18200	4700 - 18300	4700 - 18300	4700 - 18300	4750 - 18400	4750 - 18400	4600 - 18200	4700 - 18300	4700 - 18300	4750 - 18400	4750 - 18400
	Chassis height - top of boom fixation, max	H2 (mm)	15150	15250	15250	15250	4025	4025	15300	15400	15400	4025	4025
	Lift height, min-max in twistlocks, row 1	H4 (mm)	-			15250			15400				
	Boom reach stroke	(mm)	7000			7000			7000				
	Truck height - seat height	H6 - H8 (mm)	4600 - 2575	4700 - 2675	4700 - 2675	4700 - 2675	2675	2675	4600 - 2575	4700 - 2675	4700 - 2675	2675	2675
	Overall truck length, without - with boom	L (mm)	10800	10800	11300	11300	12300	12300	10900	10900	10900	11900	11900
	Truck width over drive axle	B (mm)	4150			4150			4150				
	Spreader sideshift	V1 (mm)	+/-450			+/-450			-				
	Spreader rotation	(deg)	+195 / -105			+195/-105			360 endless				
	Ground clearance	(mm)	300			300			300			300	300
	Aisle width with 20'-40' container	A1 - A2 (mm)	-			-			-				
Turning radius, outer with 20'-40' container	R1 - R3 (mm)	8100	8100	8500	8500	9400	9400	9400	12450	12450	9400	9400	
DRIVE LINE	Travel speed, fw unloaded - rated load / rw unloaded - rated load, max	(km/h)	28 - 22 / 18 - 18			28-22 / 18-18			28 - 5 / 18 - 5				
	Lifting speed, unloaded - 70% of rated load	(m/s)	0,42 - 0,24			0,42 - 0,24			0,42 - 0,22				
	Lowering speed, unloaded - rated load	(m/s)	0,36 - 0,36			0,36 - 0,36			0,20 - 0,36				
	Drawbar pull / towing capacity, max	(kN)	250			250			250				
OTHER	Tank volumes of working oil & brake oil	(l)	740 (600 + 140)			740 (600 + 140)			740 (600 + 140)				
	Working pressure boom/spreader, max	(MPa)	23 / -			23			23				
	Noise level LpAZ (EN12053), inside cabin ³	(dB(A))	68 - 70			68 - 70			68 - 70				
	Noise level LpAZ (2000/14/EC), outside cabin ³	(dB(A))	107 - 110			107 - 110			107 - 110				

1. Rows for Intermodal handling / Load center for Industrial handling
2. 4 + 2 pneumatic / diagonal tyres
3. Depending on ECO Drive Mode setting



KALMAR

Making your every move count

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