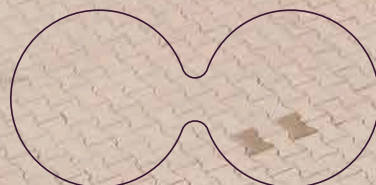




Heavy Forklift

Big challenges made easy
DCG380-540



Make light work of heavy loads

Our range of heavy forklifts can handle loads of 38 to 54 tonnes with ease.

They have been built to deliver on power and performance - yet designed to feel as agile and smooth to operate as a much smaller machine. No matter what you are lifting in your steel mill or foundry, in the production of wind turbine main components or heavy precast and concrete pieces, the new Kalmar Heavy Forklift will do it efficiently, effectively and safely.

Easier to specify the solution you need

We understand that your heavy lifting needs are unique to your business, which is why we offer a range of three different wheelbases with two width options so you can choose the combination that works best for your business. There are also a large range of lift masts, fork carriages, fork quick-change solution or integral forks and a world of sub-attachments to choose from. We offer Simplex, Duplex or Triplex with or without with Freelift on our heavy range.

Easier to maintain

With a tiltable cabin, engine hatches instead of a hood, and easily accessible service points, your new heavy forklift will be quicker and easier to maintain as the entire powertrain, hydraulics and service points are fully accessible. Saving you time and money.

There is also a range of Kalmar Care Service and Maintenance packages that can be tailored to your specific needs to help keep your forklift operating at its best.

Safety in focus

Kalmar's range of diesel powered 38-54T forklift trucks offer highly safe handling and superior visibility from the cabin, helping to keep your driver safe and in control at all times. Your drivers and co-workers will also benefit from the reduced noise and vibrations with a smooth and diesel powertrain. There are also a large range of safety options available that can further enhance the safety of your equipment and the drivers operating them.

A full range of diesel powered forklift trucks

Kalmar has offered an extensive range of diesel powered forklift trucks since the 1950's with over 100.000 units sold. Kalmar offer 4 diesel ranges, starting with 10-18T (medium), 18-33T (heavy), 38-54T (big heavy) and the giants 60-85T (super heavy). We can work with you to configure a solution that fits exactly your requirements.

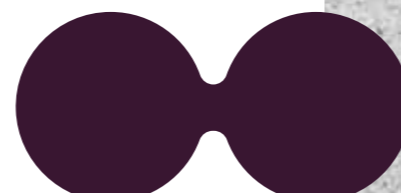
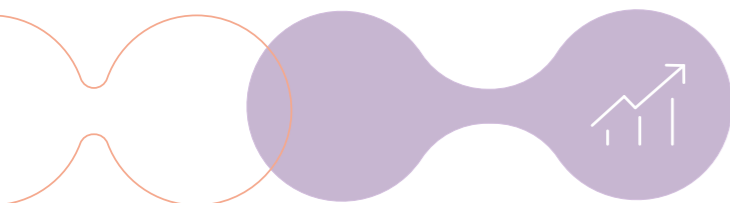
Four good reasons to choose Kalmar

- Highest productivity
- Trusted and reliable partner
- Better total cost of ownership
- Great ergonomics, visibility and safety.

It is no surprise that customer survey results coincide with Kalmar core values. After all, we listen attentively to customers when designing and developing our forklifts. Looking at the big picture, adding up things that truly matter, it will always pay off to choose Kalmar.



Built to deliver on power and performance, yet designed to feel as smooth and agile as a much smaller machine.



Reducing lifetime costs

Purchase price is only one of many factors affecting total cost of ownership. In fact, price is a minor cost factor looking over the lifetime of your forklift. What truly matters in the long run is cost control and operational efficiency – and that will show clearly on your bottom line.

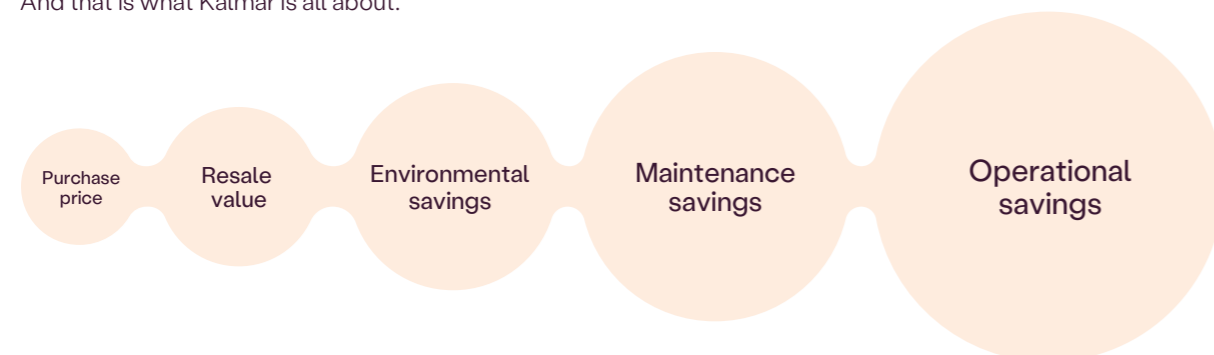
Compared to our previous model, the new DCG380-540 uses up to 15% less fuel in standard configuration. Add Kalmar's renowned product quality and reliability, increasing efficiency and uptime, and you see the true value of Kalmar.

The forklift's variable pumps and fan are automatically adjusted to the precise need. The pumps and the fan are only operated at full speed when necessary, reducing fuel consumption and noise. Another cost saving feature is Economy mode, an engine setting available to the operator from within the cabin, which further lowers fuel consumption.





The risk of unplanned standstills has been reduced due to intelligent error detection built into the new control system, which accurately pinpoints potential problems in clear text on a display in the cabin.

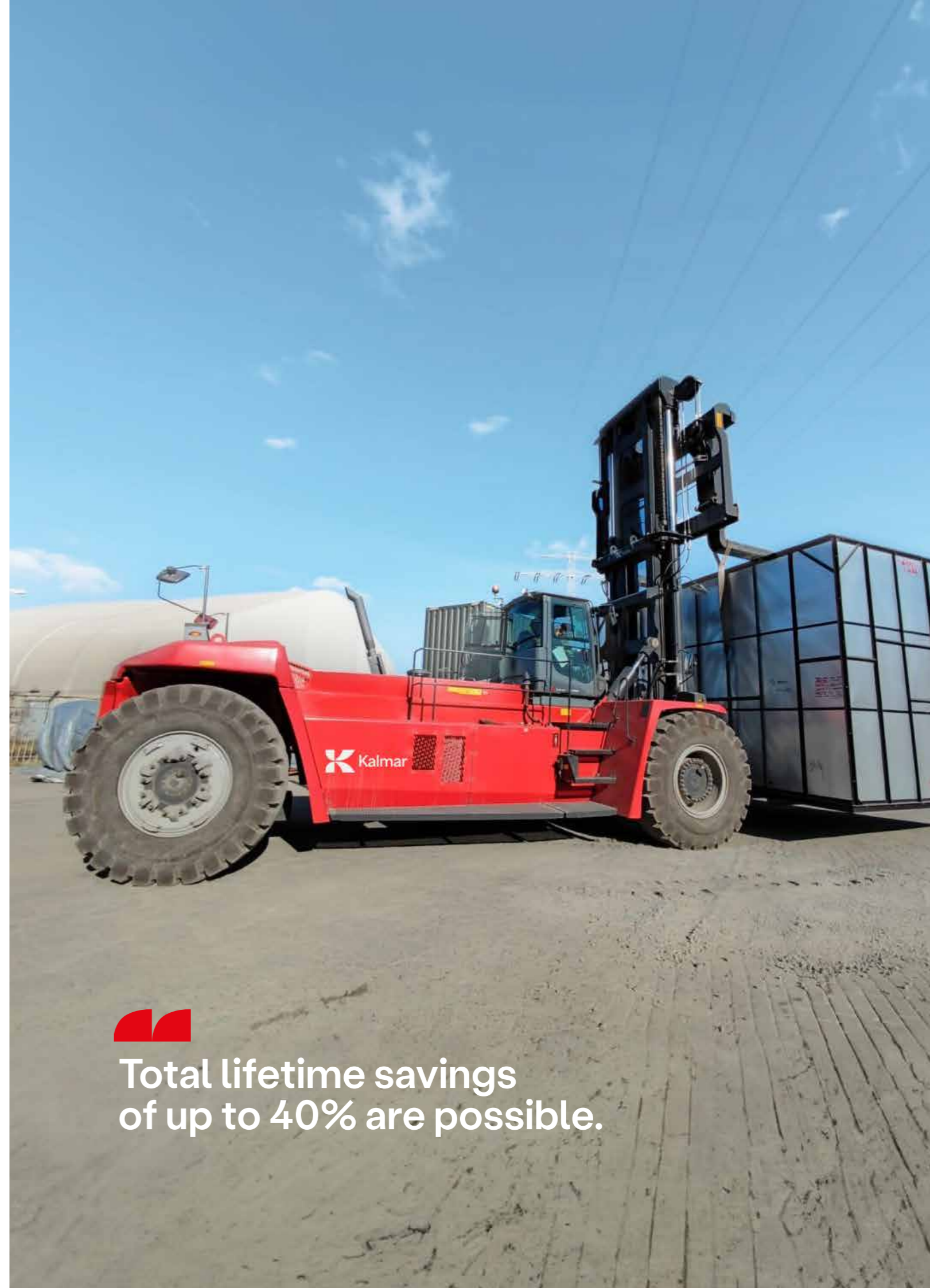
Lifetime savings

Purchase price represents only a small part of the total cost of ownership. What matters in the long run is reducing operational and maintenance costs. And that is what Kalmar is all about.



Cost saving features

-  **Powerful and fuel efficient diesel engines.** The latest EU Stage V (EPA Tier 4-Final) compliant engines from Cummins and Volvo reduce fuel consumption by **up to 5%**.
-  **Standard with Eco Drive Modes [EDM].** When optimising the setting with the EDM, the fuel consumption can be reduced by **up to 25%**.
-  **Energy efficient sub systems.** Optimised load-sensing hydraulics with piston pumps and variable cooling fan can save **up to 10%**.
-  **Increased uptime.** Longer service intervals and improved problem detection reduce downtime.
- Total lifetime savings.** Adding all energy saving features, savings **up to 40%** are possible.



Total lifetime savings of up to 40% are possible.



Built for maximum productivity

Your Kalmar forklift will always deliver what your operations require. With Power Mode activated, operators will have the power necessary to go all-in at every instant and work with maximum productivity. Pushing it hard, while ensuring best-in-class fine-manoeuving.

Our Cummins and Volvo engines are powerful, yet highly fuel efficient. You have a choice of engines which are compliant with EU Stage IIIA / EPA Tier 3 (Cummins) or EU Stage V / EPA Tier 4-Final (Cummins & Volvo).

All of our heavy forklifts come fitted with load sensing hydraulics (power-on-demand) as standard. The variable pumps automatically sense the load in every operation and adjust the oil flow accordingly, allowing

for faster lifting cycles up to 40% while reducing fuel consumption. This will help to improve your productivity as you can do more lifts per hour.

Many operators testify to the forklift's improved operational capabilities, especially when fine manoeuvring, such as side-shift and fork positioning. Also, the lowering speed has been increased, preparing the machine faster for the next lift.

Eco Drive Modes

Choose between three different drive modes, each optimised to meet your operational requirements. The forklift 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 15%.

Economy

If total cost of operations outweighs the need for performance, Economy Mode reduces fuel consumption by up to 25%.

Save up to **15%**

Save up to **25%**

Designed for the driver



Ergonomically designed

Kalmar Forklifts come fitted with our ergonomically designed EGO cabin. With slim line a-pillars, adjustable seating, steering wheel and control panel, your drivers will benefit from a superior operating environment and visibility.



More comfortable

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



Easy to operate

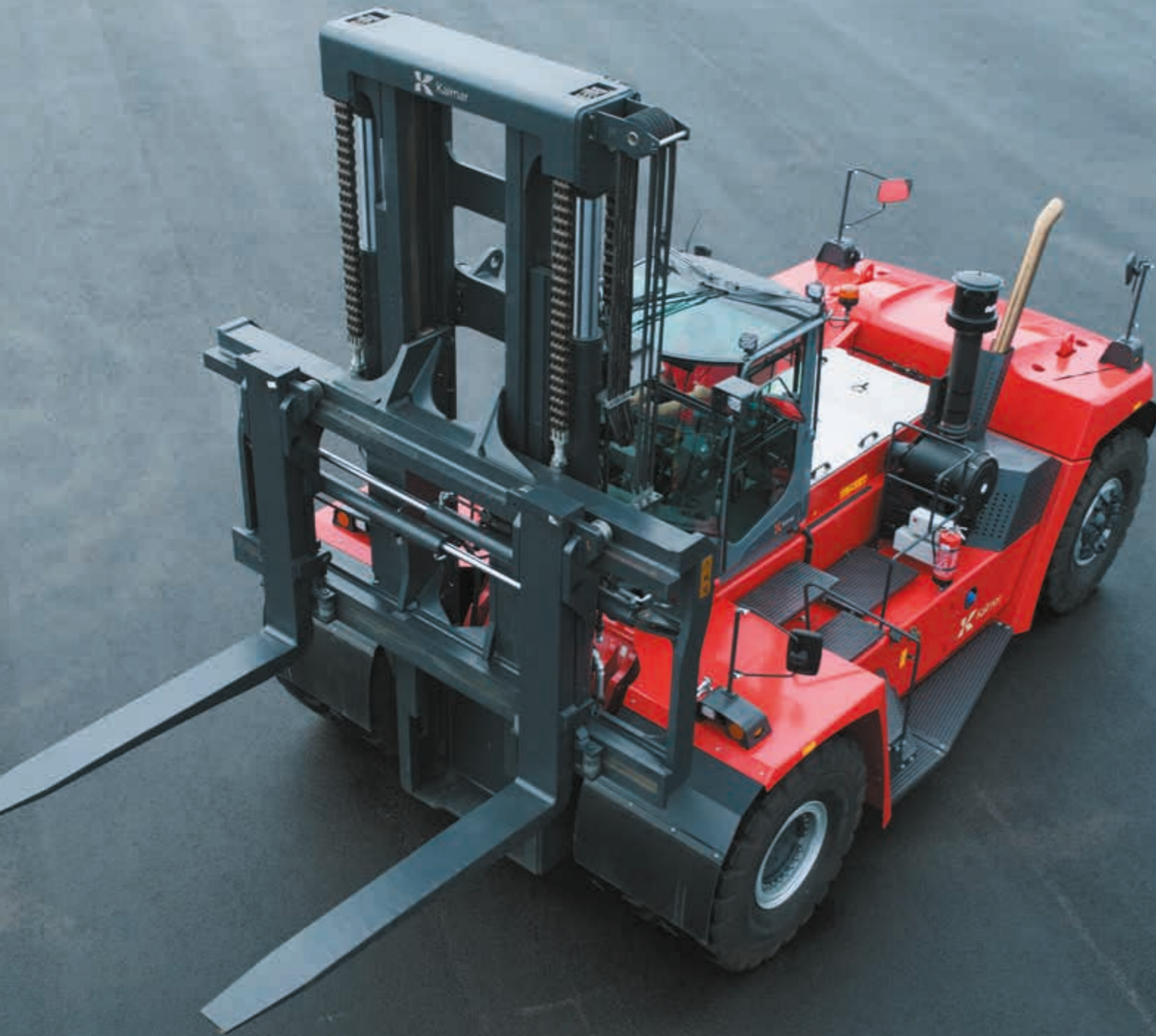
Our diesel powered forklift trucks give you a wide choice electric-servo lifting levers, dual lever joystick or single joystick, an electronically adjustable work console and side tilting steering wheel. All designed to make operating your forklift easier and more efficient to operate.



Extra smart

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

Choose your own upgrade options



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



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 they stay out of harm's way at all times.



Heat Protection Package. To protect your machine and operator from extreme heat generated in foundries, where molten metal can reach 2000°C. All hoses in the mast and carriage are heat protected and an extra windshield is fitted to protect the cabin from splashes from the vat.



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



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



Additional lighting. If you have to operate your machine at night, extra lighting can bring greater operational visibility and safety for personnel. You can choose additional LED working lamps on your cabin roof, on the mast or placed at the front or rear of your forklift.



Reversible Engine Fan. If your forklift needs to operate in a dirty and dusty environment then a reversible fan can help keep your driveline cleaner and operating optimally.



What do you need to lift?

Choose between a wide range of lifting masts, carriages, forks and attachments. We offer complete solutions whereby we assemble the attachment in the factory and integrate it with the forklift's other functions.

Metal industry

Our heavy diesel powered forklifts can lift, stack and transport metal slabs, blooms and billets or plates, coils, bars and pipes, which is made even easier and safer when you use speciality attachments including magnets, clamps, grippers, coil rams, forks or slings fitted to the lifting equipment. Also raw material supplies and recycling can be handled.



Concrete, energy and heavy industry

Flat, round or bulky concrete sections, wave-breakers, bricks and rocks can be lifted with ease, as can hardware for the energy sector: like supplies for oil & gas offshore sites, or biomass and nuclear plants. Heavy loads for the wind turbines and their sub contractors; producing foundations, mono-piles, tower sections, nacelles, drive units and blades can also be lifted and moved safely and efficiently.



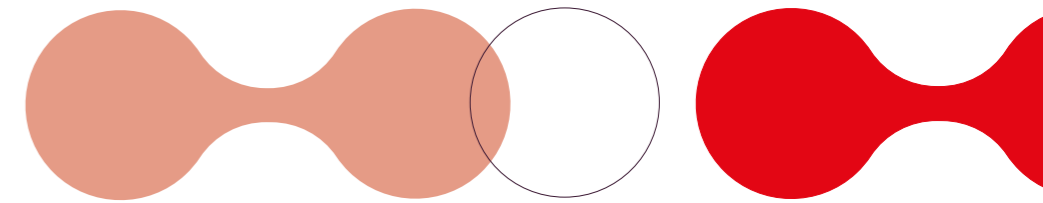
Special and customised

Kalmar has a long tradition of delivering highly customised solutions that solve our customers' individual handling demands and challenges. Using our wide range of solutions, with tailor-made specifications and dedicated forklifts that will do the job with precision, efficiency and with low total cost of ownership (TCO).



Logistics and stevedoring

Whether you're moving containers, handling various types of breakbulk, heavy project cargo or RoRo applications - Kalmar can deliver the efficient and safe material handling solution that you need.



Safety fitted as standard

All Kalmar equipment is compliant with EN 1175:2020.

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

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

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



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



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



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.



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



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



Neutral start 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.



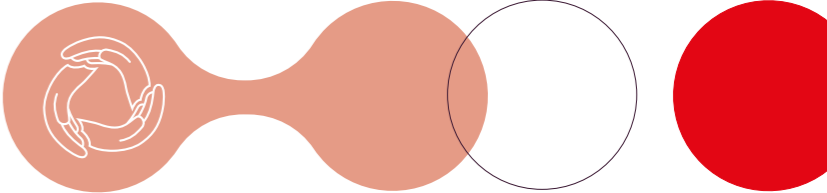
Keep moving with Kalmar Services

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.

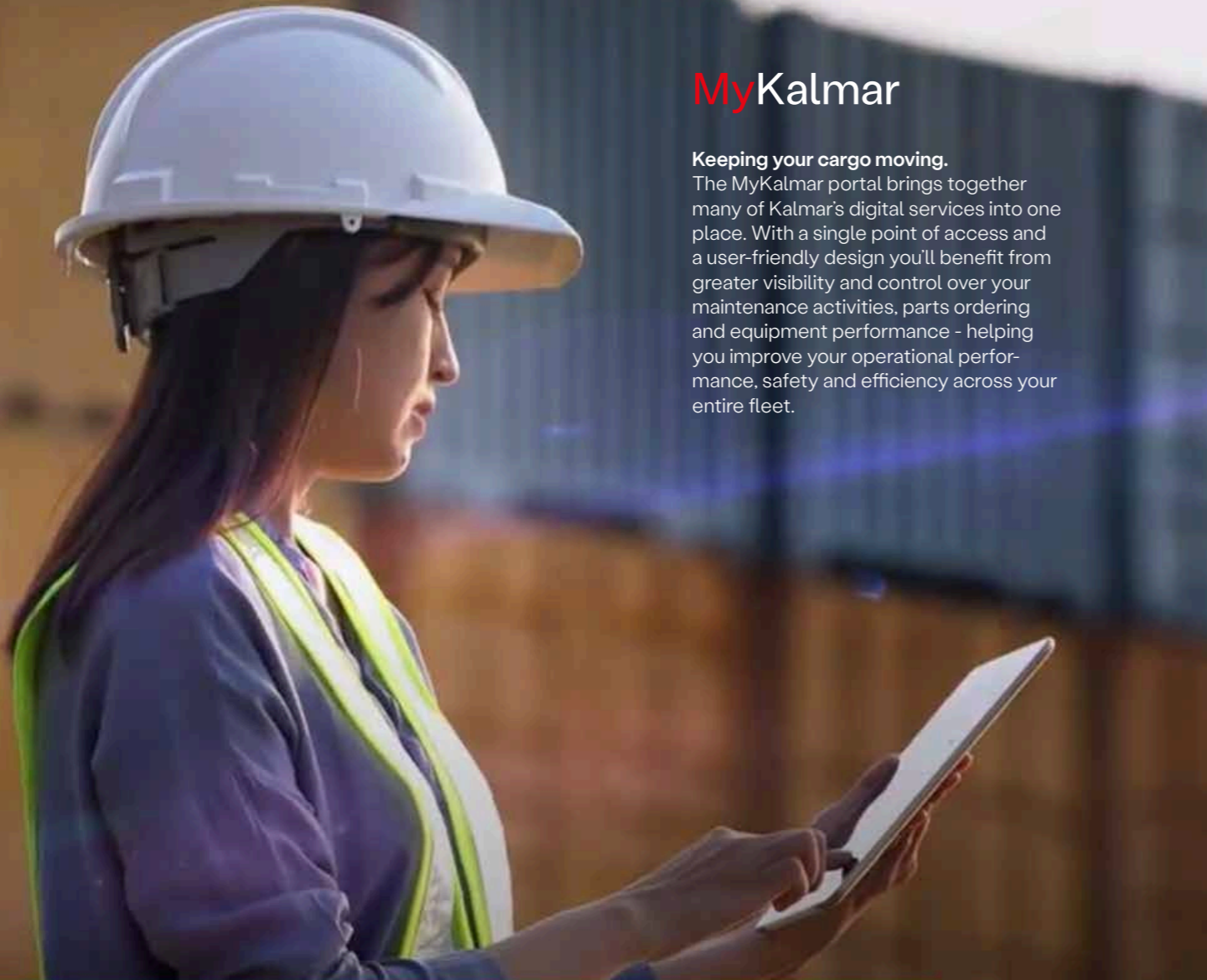


On Demand Care
 Top-of-the-line service whenever you need it.

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

● Included ● Optional

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



MyKalmar

Keeping your cargo moving.

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

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.



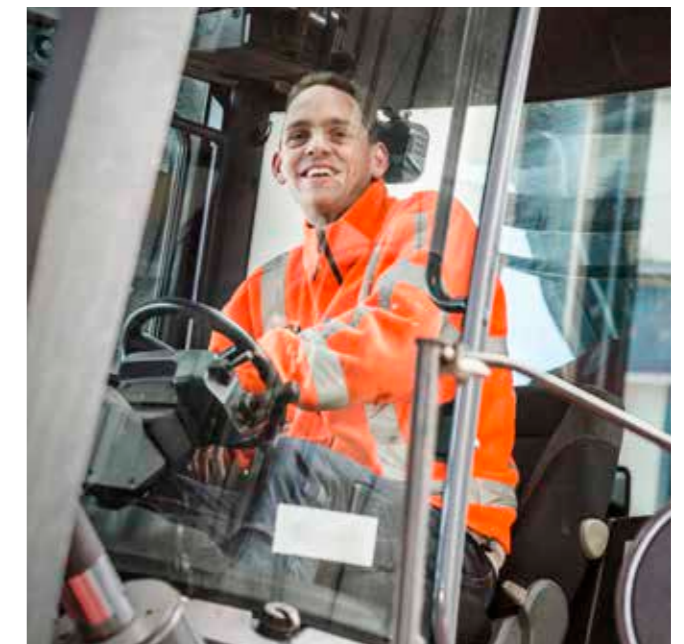
MyKalmar STORE

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

Kalmar Training

Enhance your skills.

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



Standard

Norms, standards and regulations

- Machinery Directive 2006/42/EC
- Safety Industrial Trucks ISO 3691-1 + EN 16307-1
- Safety Low & High Lift Trucks ANSI / ITSDF B56.1
- Stability Masted Forklift Trucks ISO 22915-1, -2
- Electrics / Electronics Safety Standard EN 1175
- Electromagnetic Compatibility Directive 2014/30/EC
- Electromagnetic Compatibility Standard EN 12895
- Noise Emission Directive 2000/14/EC + 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, durable, heavy-duty box chassis
- Powerful front end unit for drive axle and lift mast fixations
- Solid tilt cylinder fixations in chassis and mast
- Full access to the entire powertrain with tilting cabin
- Very good visibility in forward, up, sideways and rearwards
- Low cabin mounting for easy access on both sides
- Lifting eyes and anchor points (front & rear)
- Towing pin in rear counter weight

Body

- Strong and protective steel mudguards (front / rear)
- Long bottom step between the mudguards (anti-slip) on both sides
- Short access steps (4x) up to the cabin (anti-slip) on LHS
- Short access steps (3x) up to the cabin (anti-slip) on RHS
- Extra short access step (1+1) on both sides (only DCG480-540)
- Big rear view mirrors on front mudguards (2x) + 2x in the mast
- Welded lamp brackets bolted on front mudguards (2x)
- Basic noise insulation kit of the forklift

Steer Axle (rear)

- Kalmar steer axle mounted dual pivot bearings
- Steer axle with mechanical side stops
- El-servo power steering with double acting cylinder
- Steer axle with narrow turning radius
- Steer links of "dog-bone type" (easy to change)

Drive Axle (front)

- Kessler D102 planetary axle with differential drive
- Maintenance-free oil-cooled Wet Disc Brakes (WDB)
- Single parking brake, spring loaded & hydraulic release
- High pressure filter (10 my) for the brakes
- Drive Axle DCG380-450, Width 4150mm
- Drive Axle DCG480-540, Width 4150mm

Wheels (tyres & rims)

- DCG380-450, Tyres 18.00 x 25" / rim 13.00 x 25" / 2.5
- DCG480-540, Tyres 18.00 x 33" / rim 13.00 x 33" / 2.5

Drivetrain

- Volvo D11, EU Stage 3 and 5 (EPA Tier 3 and 4F)
- 6-cylinder diesel engines with pre-heater
- High power & torque with low fuel consumption
- Engine monitoring and protection systems
- Automatic DANA transmissions LTE-30500
- Transmission monitoring and reverse protection
- Declutch function activated by the brake pressure
- Strong radiators for engine, transmission & brakes
- Muffler and exhaust pipe in steel
- Diesel tank (450 lit) incl. breather filter

Load-Sensing Hydraulics

- Load-sensing variable piston pumps (2x)
- Power-on-demand with high lift & lowering speeds
- Pumps for mast, spreader, brakes & steering
- Fixed pump for brake pressure & oil cooling

- Return filters for the work hydraulics (2x/10 mj)
- Servo filter for the work hydraulics (10 mj)
- Pressure filter for hydraulics / brakes (10 mj)
- Power steering, power brakes & ORFS-couplings
- Hydraulic tank (630 lit), cooling, breather filter & ORFS-couplings

Lift Mast

- Large selection of mast types and lifting heights.
- Duplex Standard: 2-stage mast, with free-visibility
- Strong, durable mast design (pair of cylinders/ chains)
- Heavy-duty mast profiles and strong cross members
- Mast with strong mast wheels, bearings & guide rollers
- Large shafts-bearing for mast, strong tilt fixation
- Mast tilt angles +5 / -10 deg (FW / BW)

Fork Carriage

- Large selection of fork carriages, types and optionals
- Carriage with strong wheels, bearings & guide rollers
- DCG380-450 Widths: 3500mm
- DCG480-540 Widths: 3700mm

Forks

- Large selection of fork dimensions, tapering and designs
- Cross sections: 300 x 135 mm / (DCG380-450)
- Cross sections: 300 x 145 mm / (DCG480-540)

Electrical System 24V

- Electric cabinet on chassis, battery box, batteries 24V & main power switch
- Electric cabinet, mounted behind driver
- 2 LED head lights on front fenders (one beam)
- 2 LED working lights on mast (first cross member)
- 2 LED working lights rear on cabin (reverse)
- 4 blinker LED-lights (front - rear / left - right)
- 2 tail / 2 brake LED-lights rear in counter weight
- 2 position LED-lights on each side of the truck
- 2 flashing LED-brake lights (when reversing)
- 1 rotating warning LED-beacon
- Buzzer when reversing (reverse alarm)

Cabin EGO

Structure

- Spacious, modern cabin with great ergonomy level
- Strong profiles, pillars and cross members
- FOPS certified drivers cabin (Fall-Over-Protection-Safety)
- Tiltable cabin with full access to powertrain & hydraulics
- Large window sections with great visibility in all directions
- Large access doors with air-damper & key-lock
- Doors; sliding windows + access handles
- Comfort**
- Large access doors with air-damper & key-lock
- Doors; sliding windows + access handles
- Drivers seat, mech. spring suspension, high back
- Comfort seat, adjustable, sensor & 2-point belt
- Electric adjustable work console (up-down/ fw-rev)
- Work console; lift levers, controls, lamp buttons etc
- Inside rear view mirrors (right and left side)
- Interior lights with fade away function
- Fully adjustable steering wheel incl tilt function
- Power steering wheel with steer knob

Controls

- Electric levers for mast, tilt & forks
- Auto rev-up accelerator at lifting / tilting / fork position
- Electric accelerator pedal (hanging)
- Double brake pedals (L + R)
- Multi-function lever LHS (parking brake/travel direction switch)
- Combined horn and blinker lever
- Warning - hand brake (on/off) leaving seat

Climate

- ECHV, electronic controlled heating & ventilation
- Powerful cab heater, power 10 kW (34.100 Btu)
- Strong AC coolinging unit, power 14.0 kW (47.700 Btu)
- High-capacity ventilation unit - max air flow 483 m3/h
- Multiple individual blowers (8x upwards / 2x downwards)

- Fresh air and recirculation filter (replaceable)
- Double wipers / washers on front window (larger area)
- Single wipers / washers on roof and rear windows
- Interval wiper functions on front, roof and rear windows

Information Systems

- Kalmar CanBus controls with 4,3" monitor
- Danfoss controls DM430E in RAM mount
- Menu controller with toggle wheel & push buttons
- Programmable settings and full monitoring of all main systems

ECO Drive Modes (EDM):

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

Operator menu:

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

Various warning lights & signals:

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

Indicator lamps:

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

Warranty

- Kalmar standard warranty: 12 months / 2.000 hours

Options

Chassis

- Models with standard and short wheelbases
- Anti-slip strips: mudguards, tanks & lamp brackets
- Extra mud flaps (front and rear)
- Steel grid protections: fender, mast & rear

Wheels (Tyres and Rims)

- Spare wheels, tyres and rims of various brands
- Diagonal and radial tyres of well known brands
- Diagonals Continental CM+
- Radials: Continental CM-Radial and Michelin XZM
- Other brands up on request

Drivetrain

- DANA Automatic transmission LTE-30500 (5+3 gears / with lockup)
- Volvo TAD-1151-VE (10,84 lit, 265 kW, 1785 Nm, EU3)
- Volvo TAD-1181-VE (10,84 lit, 265 kW, 1785 Nm, EU5 / Tier 4-Final)
- Auto engine & ignition stop, after 5 min idle
- Air intake filter, with Pre-Cleaner, raised air intake
- Start/stop function (for Volvo engine only)

Hydraulics

- Extra hydraulic function including hoses (per function)
- Push-button hydraulic function via magnet valve
- Quick release couplings "aerogrip" 1/2" (per function)
- Individual fork positioning including 5th hydraulic function
- Hydraulic accumulator for lifting funciton
- Hydraulic accumulator for lifting function "auto on/off"
- Separated dual oil tanks including dual oil cooling
- Working oil tank 500 lit / brake oil tank 130 lit
- Hydraulic oil heater 1 kW (single or double)
- Other Tilt angles up on request

Lifting Mast

- Duplex Standard (no FL): lift heights 3.00 - 10.00 m
- Duplex Freelift (full FL): lift heights 3.00 - 7.00 m
- Triplex Freelift (full FL): lift heights 4.50 - 7.00 m
- Simplex : lift heights 1.50 - 4.00 m
- Other lift heights / closed heights upon request

Fork Carriage

- DCG380-450: Sideshift/fork positioning: width 3.50 / 3.70 / 3.90 m
- DCG480-540: Sideshift/fork positioning: width 3.50 / 3.70 m
- DCG380-450: Sideshift/fork position + center levelling: width 4.10 m
- Attachments: carriage sides, chain brackets & hoses
- Attachment of various brands for factory integration
- Other carriage width upon request

Forks

- See fork dimensions under Specifications
- Length: 2400 up to 3000 mm in steps (special)
- Other cross sections upon request
- Tapering: various optional tapering / short or full taper
- Fork Shaft System: hook-on type / forks, coil ram or attachment
- Fork Shaft System: pin-type / forks, coil ram or attachment
- Kissing forks with chamfer inside/outside (integral roller-type)
- Kissing forks with chamfer inside/outside (FSS hook-on type)

Attachment

- Various attachments available:
 - Inverted forks
 - Coil ram
 - Rotator
 - Load stabilizer
 - Steel magnet
 - Spreader
 - Mounting of attachments
 - Other attachments up on request

Electrical System (24V)

- Tuner FM-AM, RDS, MP3, USB, Bluetooth, Stream
- Tuner FM-AM, RDS, MP3, USB, Bluetooth, Stream / DAB
- Power sockets: 2x24V and 2x12V (in door columns)
- Power sockets: 2x24V / 1x12V / 2xUSB 5V
- Electric air pressure horn
- Reverse alarm (beeping or white noise - multi frequency)
- Protection against chain slack (electronics)
- Mast with automatic vertical function (auto-tilt)

Lamps

- 2 extra LED working lights - in mast (FW)
- 2 extra LED working lights - rear on cabin (FW)
- 4 extra LED working lights - rear on cabin (mix)
- 6 extra LED working lights - rear on cabin (mix)
- 2 extra LED working lights - front on cabin roof
- 1 extra LED working lights - between tilt cylinder
- 2 high/Low beam Halogen working lights (repl LED)
- 1 LED rotating warning beacon (on adjustable pole LHS)
- Blue safety light, rearward or forward
- Red safety light, rearward or forward
- Red safety zone light, Left and Right direction
- Rotating beacon LED, activated via reverse gear
- Other combination up on request

Safety functions

- Overload indication for lift/tilt incl. speed restriction
- Speed limitation: default 15 km/h (set by technician)
- Speed limitation at specified load (set by technician)
- Speed limitation at specified lift height (set by technician)
- Speed restriction set by customer in display: default 15 km/hv
- Tyre pressure monitoring system (TPMS / Bluetooth)
- Alcolock Draeger in cabin

Cabin EGO

Structure

- Globetrotter cabin +200 mm higher, roof 12 mm (repl 6 mm),
- Elevated cabin 300 mm
- Sliding cabin to the right side (hydraulic power / +375mm)
- Rotatable Driver Seat, electric 180 deg (to the left)
- Turnable Driver Seat, manual 55 deg (to the right)
- Steel grid protection for front window
- Steel grid protection for roof window
- Door opening holder (left side and / or right side)
- Flat front window with steel profiles, tinted and laminated
- Roof window 12 mm (repl standard 6 mm)
- Electric cabin tilt pump (up/down)
- Electric heated mirrors, front fender/standard pos
- External cabin reverse mirrors (2x)
- External cabin reverse mirrors (2x) with heating
- Electric heated + adjustable mirrors, front mudguards

Comfort

- Air cushioned driver seat with horizontal suspension
- 3-point seat belt
- Extended seat backrest
- Headrest for driver's seat
- Armrest adjustable left side
- Seat heating
- Seat cover in vinyl
- Leather reinforced seat, high backrest, 3-point belt and heating
- Grammer Actimo XL, air cushion, heating, high back, 2-point belt
- BE-GE 3100, air cushion, heating, airvent, high back, 2-point belt, leather reinforced seat
- Isringhausen 6830KA/880, air cushion, heating, high back, 2-point belt
- Extra trainer seat incl. 2-point belt
- Bracket for terminal and monitor (RHS)

Controls

- Travel direction button on 1st lift lever (F-N-R)
- Electronic joystick (EGO)
- Electronic lever steering (without feedback)
- Electronic mini-wheel steering (no feedback)

Climate

- ECC, electronic heating, cooling (AC) & ventilation
- Tinted windows including laminated front window
- Sun visors front, roof and rear windows

Additional Equipment

- Enhanced Safety Package
 - Speed limitation default 15 km/h or free (set by technician)
 - Blue safety light backwards via back alarm
 - Rear warning radar (for reverse camera/ monitor in cabin)
 - Seat belt interlock (active before driving - seatbelt on)
- Semi-automatic fire suppression system (DAFO Forrex)
- Fire extinguisher 6 kg, powder (LHS / behind foot steps)
- Tool kit
- Central greasing system (14-18-24 grease points)
- Tilt indicator of mechanical type
- Tilt indicator of electronic type (in display)
- Electronic weight indicator in cabin control monitor
- Heat protection kit (incl hoses)
- Heat protection mechanical kit
- Wheelnut protection
- Additional equipment for roadtraffic (LGF-sign)

Camera safety

- Modular full HD solutions (1920x1080p)
- Extra front mast camera - to cab monitor
- Extra front carriage camera - to cab monitor
- Radar warning sensors rear (2x) to cab monitor
- Monitor 7in Quad, max 4 connections (repl Dual)
- Monitor 10in Quad, max 4 connections (repl Dual)
- DVR recorder, up to 4 channels, with SD-card (128 GB)
- 360 birdview camera solution (not with sliding cabin)

Information Systems

- VDI - Vehicle Data Interface

Fleet Management (Kalmar Insight)

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

Colour

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

Documentation & Decals

- Extra set of documentation
- Workshop manuals
- Load chart lbs/inch in cab & sign "no riders"
- Documentation on memory stick

Training

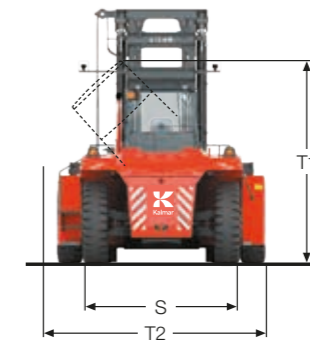
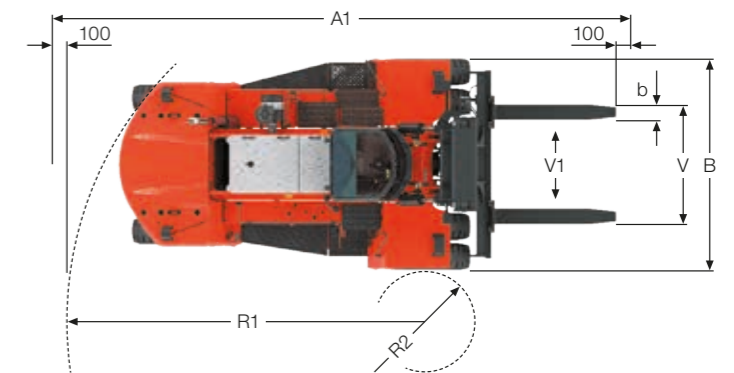
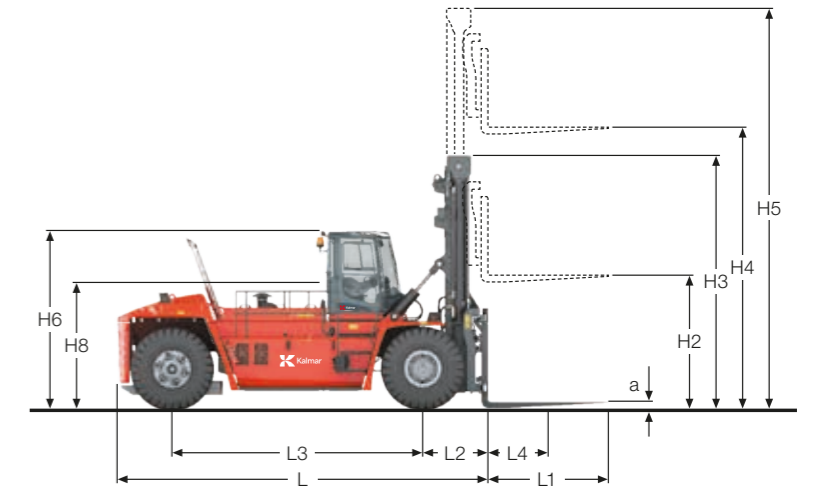
- Training packages (driver, service, maintenance, software)
- Contact Kalmar Training Centre for more information

Warranty

- Additional warranty packages available:
 - Gold (complete forklift): max 5 yr/10.000h
 - Silver (drive line): max 8 yr/16.000h
 - Bronze (structural parts): max 10 yr/20.000h
- Contact Kalmar for more information

Specifications

MODELS LIFTING CAPACITY	Models			DCG380-12S	DCG380-12	DCG420-12S	DCG420-12	DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12	
		Rated capacity		kg	38 000	38 000	42 000	42 000	45 000	45 000	48 000	48 000	52 000	54 000
	Load centre distance	L4	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	
FORKLIFT DIMENSIONS	Truck length (to fork face front)	L	mm	7300	7800	7300	7800	7300	7800	8025	8525	8525	8525	
	Distance, centre drive axle - fork face front	L2	mm	1305	1305	1305	1305	1305	1305	1430	1430	1430	1430	
	Wheelbase	L3	mm	5000	5500	5000	5500	5000	5500	5500	6000	6000	6000	
	Truck width (over tires)	B	mm	4150	4150	4150	4150	4150	4150	4150	4150	4150	4150	
	Roof height cabin (basic forklift)	H6	mm	3550	3550	3550	3550	3550	3550	3650	3650	3650	3650	
	Seat height cabin	H8	mm	2500	2500	2500	2500	2500	2500	2600	2600	2600	2600	
	Height / width, max (with tilted cabin)	T1 / T2	mm	4000 / 4200	4000 / 4200	4000 / 4200	4000 / 4200	4000 / 4200	4000 / 4200	4100 / 4200	4100 / 4200	4100 / 4200	4100 / 4200	
	Track (c-c), front / rear	S1 / S2	mm	3030 / 2625	3030 / 2625	3030 / 2625	3030 / 2625	3030 / 2625	3030 / 2625	3030 / 2815	3030 / 2815	3030 / 2815	3030 / 2815	
	Turning radius, outer / inner	R1 / R2	mm	6900 / 1000	7400 / 1100	6900 / 1000	7400 / 1100	6900 / 1000	7400 / 1100	8150 / 1100	8650 / 1200	8650 / 1200	8650 / 1200	
	Aisle width min, at 90° driving with forks	A1	mm	10805	11305	10805	11305	10805	11305	12180	12680	12680	12680	
Ground clearance, min		mm	240	240	240	240	240	240	300	300	300	300		
LIFTING EQUIPMENT	Duplex Standard	Lifting height ¹	H4	mm	5000		5000		5000		5000		5000	
		Mast height, min	H3	mm	5050		5050		5050		5600		5600	
		Mast height, max	H5	mm	7550		7550		7550		8100		8100	
		Mast tilt, forward – backward	a – β	°	5 / 10		5 / 10		5 / 10		5 / 10		5 / 10	
	Forks	Width x Thickness	b x a	mm	300 x 135		300 x 135		300 x 135		300 x 145		300 x 145	
		Length	l	mm	2400		2400		2400		2400		2400	
		Forks position, outside width, min-max.	V	mm	3350 / 950		3350 / 950		3350 / 950		3310 / 990		3310 / 990	
Forks sideshift, max stroke at opening (c-c) ^{2&4}	V1 – V	mm	700 / 1950		700 / 1950		700 / 1950		700 / 1950		700 / 1950			
Fork carriage width ^{2&4}	b3	mm	3700		3700		3700		3700		3700			
WEIGHTS	Service weight ³		kg	51 400	49 400	53 900	51 700	55 800	53 500	61 900	59 700	62 000	63 100	
		Axle load front		kg	26 400	26 700	26 400	26 700	26 400	26 700	32 000	32 300	32 300	32 300
	Axle load rear	Unloaded		kg	83 400	82 000	89 400	87 800	93 900	92 200	103 000	101 300	107 100	110 000
		At rated load		kg	25 000	22 700	27 500	25 000	29 400	26 800	29 900	27 400	29 700	30 800
WHEELS	Wheels	Number of wheels, front – rear (x = driven)				4 – 2		4 – 2				4 – 2		
		Tyres	Pneumatics, type / pressure (front - rear)			Diagonal / 1.0		Diagonal / 1.0		Diagonal / 1.0		Diagonal / 1.0		
	Rims	Dimensions, front + rear	tum			18.00 x 25"		18.00 x 25"		18.00 x 33"		18.00 x 33"		
		Dimensions, front + rear	tum			13.00 x 25/2.5		13.00 x 25/2.5		13.00 x 33/2.5		13.00 x 33/2.5		
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / Power steering / double acting single cylinder				Kalmar steer axle / Power steering / double acting single cylinder					
	Drive axle	Manufacturer, type - designation			Kessler D102-PL341 Differential and hub reduction				Kessler D102-PL341 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					
HYDRAULICS	Parking brake	Type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels				Single dry disc / spring activated - hydraulic release / drive wheels					
	Hydraulics	System type / pump type			Load-sensing / power-on-demand / piston pumps				Load-sensing / power-on-demand / piston pumps					
	Oil pressure	Max working pressure	MPa		19.5		21.0		22.0		19.5		21.0	21.5
	Tank	Oil volume	Lit			600				600				
	Fuel tank, capacity	Lit			450				450					
	AdBlue tank, capacity	Lit			35				35					



- Notes:
1. Technical data: mast Duplex Standard with 5000 mm lift height.
 2. Technical data: fork carriage with integral sideshift / fork position (SSFP).
 3. Service weights / axle loading: values with standard configuration.
 4. Other fork carriages upon request.

Performance

MODELS	All wheelbases (standard and short)		DCG380-12S	DCG380-12	DCG420-12S	DCG420-12	
	Volvo engines		TAD-1151-VE (EU Stage IIIA / EPA Tier 3) / TAD-1181-VE (EU Stage V / EPA Tier 4-Final)				
SPEEDS	Travel speed, forward - reverse	Unloaded / at rated load	km/h	27 - 20 / 20 - 16			
	Lifting speed	Unloaded / at rated load 70%	m/s	0.34 / 0.32			
	Lowering speed	Unloaded / at rated load	m/s	0.42 / 0.50			
POWER	Gradeability, max	Unloaded	%	96	104	88	95
		At rated load	%	43	44	40	41
	Gradeability, at 2 km/h	Unloaded	%	58	61	54	57
		At rated load	%	30	31	28	28
Drawbar pull		kN	350	350	350	350	
SOUND	Noise level, inside (with EDM ¹)	EN12053, LpAZ	dB(A)	72 - 75			
	Noise level, outside (with EDM ¹)	EN12053, LWAZ	dB(A)	105 - 108			
	Noise level, outside (with EDM ¹)	2000/14/EC, LWAZ	dB(A)	108 - 111			

DCG450-12S	DCG450-12	DCG480-12S	DCG480-12	DCG520-12	DCG540-12
TAD-1151-VE (EU Stage IIIA / EPA Tier 3) / TAD-1181-VE (EU Stage V / EPA Tier 4-Final)					
27 - 18 / 22 - 15					
0.28 / 0.26					
0.35 / 0.40					
83	89	59	62	59	58
37	38	30	30	29	28
52	55	40	41	40	39
26	27	21	21	20	20
350	350	312	312	312	312
72 - 75					
105 - 108					
108 - 111					

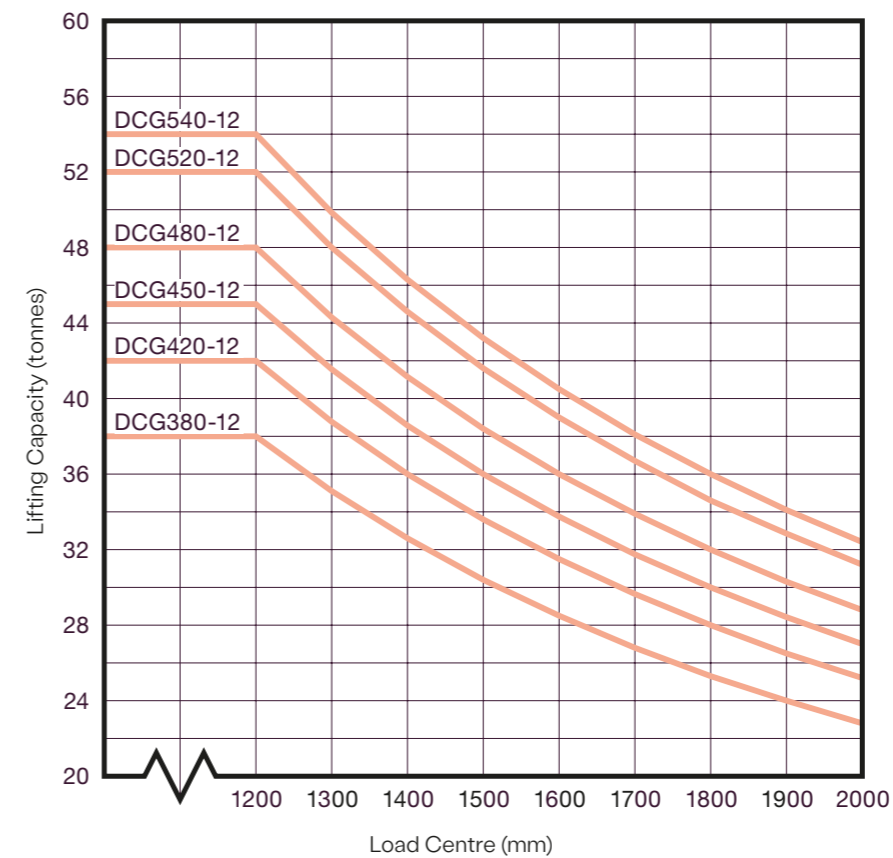
Notes:
 1. With Eco Drive Mode (EDM) drivetrain settings included. Eco (1600 rpm), Normal (1800 rpm) and Power (2200 rpm).

Drivetrains

MODELS	Models		DCG380 - 540	DCG380-12S
	Wheelbase	mm	5000 - 6000	5000 - 6000
ENGINE	Drive motor, manufacturer - type designation		Volvo TAD-1151-VE	Volvo TAD-1181-VE
	Fuel types, motor type ¹		Diesel / HVO / 4-stroke	Diesel / HVO / 4-stroke
	Turbo charger / cooling		Turbo (FGT) + Intercooler	Turbo (FGT) + Intercooler
	Engine after treatment type ²		No AdBlue, DOC, SCR or DPF	With AdBlue, DOC and ASC
	Diesel particle filter (DPF)		No DPF	With DPF
	Emission standards		EU Stage IIIA / EPA Tier 3	EU Stage V / EPA Tier 4-Final
	Rated power / at revs (ISO 3046)	kW / rpm	265 / 2100	265 / 2100
	Peak power / at revs (ISO 3046)	kW / rpm	265 / 1450 - 2100	265 / 1500 - 2100
	Peak torque / at revs (ISO 3046)	NW / rpm	1785 / 1260	1785 / 1300
	Number of cylinders / displacement	lit (in2)	6 / 10.840 (661)	6 / 10.840 (661)
Fuel consumption, normal driving	lit/h	15 - 20	15 - 20	
AdBlue consumption, normal driving ²	%	-	4 - 6	
GEARBOX & MISC	Manufacturer's type designation		Dana LTE-30500	Dana LTE-30500
	Clutch, type		Torque converter with Lock-up clutch	Torque converter with Lock-up
	Transmission, type		Hydrodynamic Powershift	Hydrodynamic Powershift
	Eco Drive Mode (EDM) drivetrain settings ³		3 modes / Eco, Normal & Power	3 modes / Eco, Normal & Power
	Numbers of gears, forward / reverse	gears	5 / 3	5 / 3
	Alternator, type / power	W	AC / 3080 (28V x 110A)	AC / 3080 (28V x 110A)
Starting battery, voltage / capacity	V / Ah	2x12 / 145	2x12 / 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 (1600 rpm), Normal (1800 rpm) and Power (2200 rpm).

Load diagram*



* Full capacity with lift height 7.00 m, masts Simplex, Duplex Standard and Duplex Freelift, carriage Sideshift / Forkposition (SS/FP) and with / without Fork Shaft System.

Lifting data

We offer a full range of duplex, triplex and free-lift equipment.*

DUPLEX STANDARD (2-stage)	DCG380-450				DCG480-540			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
3500	4300	6050	-	3500	4850	6600	-	
4000	4550	6550	-	4000	5100	7100	-	
4500	4800	7050	-	4500	5350	7600	-	
5000	5050	7550	-	5000	5600	8100	-	
5500	5300	8050	-	5500	5850	8600	-	
6000	5550	8550	-	6000	6100	9100	-	
6500	5800	9050	-	6500	6350	9600	-	
7000	6050	9550	-	7000	6600	10100	-	
7500	6300	10050	-	7500	6850	10600	-	
8000	6550	10550	-	8000	7100	11100	-	
8500	6800	11050	-	8500	7350	11600	-	
9000	7050	11550	-	9000	7600	12100	-	
9500	7300	12050	-	9500	7850	12600	-	
10000	7550	12550	-	10000	8100	13100	-	

DUPLEX FREELIFT (2-stage)	DCG380-450				DCG480-540			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
3500	4300	6050	1650	3500	4850	6600	1650	
4000	4550	6550	1900	4000	5100	7100	1900	
4500	4800	7050	2150	4500	5350	7600	2150	
5000	5050	7550	2400	5000	5600	8100	2400	
5500	5300	8050	2650	5500	5850	8600	2650	
6000	5550	8550	2900	6000	6100	9100	2900	
6500	5800	9050	3150	6500	6350	9600	3150	
7000	6050	9550	3400	7000	6600	10100	3400	
8000	-	-	-	8000	-	-	-	
9000	-	-	-	9000	-	-	-	
10000	-	-	-	10000	-	-	-	

TRIPLEX FREELIFT (3-stage)	DCG380-450				DCG480-540			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
4100	3950	6500	1550	3950	4100	6650	1400	
6000	4500	8400	2200	5750	4700	8450	2000	

SIMPLEX LIFT (3-stage)	DCG380-450				DCG480-540			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
1500	4150	4150	-	1500	4300	4300	-	
2000	4650	4650	-	2000	4800	4800	-	
2500	5150	5150	-	2500	5300	5300	-	
3000	5650	5650	-	3000	5800	5800	-	
3500	6150	6150	-	3500	6300	6300	-	
4000	6650	6650	-	4000	6800	6800	-	

Notes:*

- Other lift heights up on request.
- Mast heights H3 and H5 in standard configuration (may change with tyre dimensions).
- Duplex Freelifift with lift cylinders and lift chains outside the mast profile.
Triplex Freelifift with lift cylinders and lift chains outside the mast profile.
Simplex with lift cylinders and lift chains outside the mast profile.
- DCG540-12: max lift height = 7000 mm.

Attachments

Masts

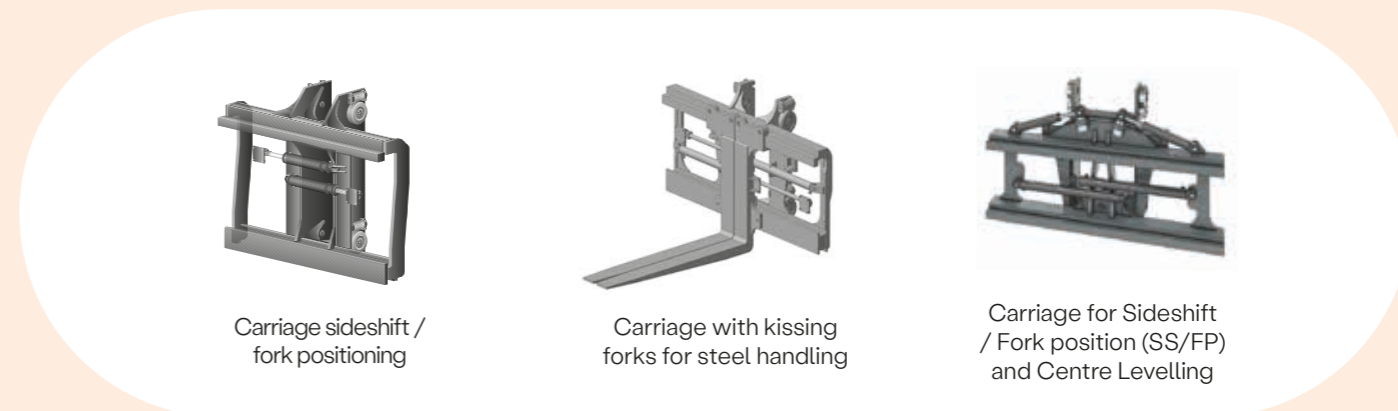


Duplex Standard
Lift height 3000 - 10000 mm

Duplex Freelifift
Lift height 3000 - 7000 mm

Triplex Freelifift
Lift height 3000 - 7000 mm

Carriages

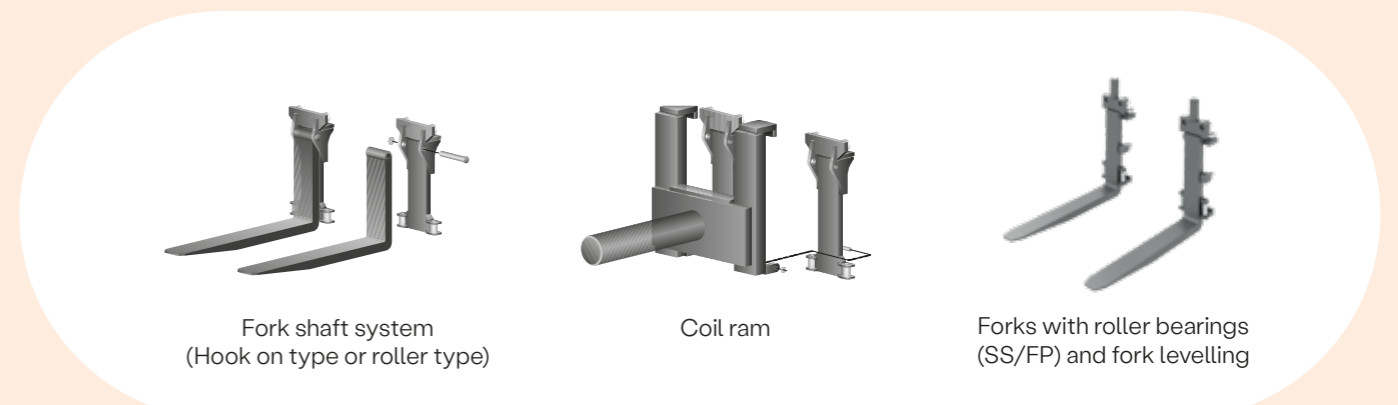


Carriage sideshift /
fork positioning

Carriage with kissing
forks for steel handling

Carriage for Sideshift
/ Fork position (SS/FP)
and Centre Levelling

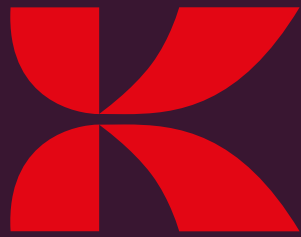
Forks



Fork shaft system
(Hook on type or roller type)

Coil ram

Forks with roller bearings
(SS/FP) and fork levelling



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