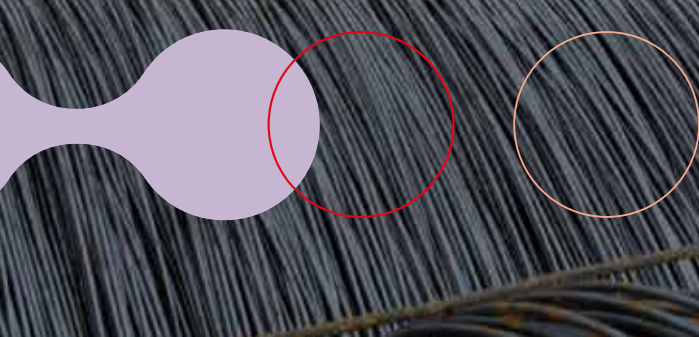




# Essential Forklifts

Quality for all 10 -18 tonnes



Kalmar Essential Range A series of small icons representing different forklift models in the Kalmar Essential Range, including a counterbalanced forklift, a reach forklift, a pallet truck, and a stacker.



# Exceeding your expectations


The Kalmar Essential Forklift Range gives you everything you expect from Kalmar – a quality build with high availability and excellent productivity for a very competitive price.

Kalmar forklifts are built to take on your toughest loads, making them ideal for demanding applications like container, steel and wood handling. Our forklifts are available with lifting capacities from 10 -18 tonnes and three different masts to match your exact lifting needs. Our new range of Essential Forklifts will exceed your expectations.

## Mast options

 Chose from three mast options: Duplex, Duplex full free, Triplex full free.

## Lifting capacities

 Available in seven lifting capacities: 10, 12, 12.7, 14, 15, 16, and 18 tonnes.

## Kalmar quality for all



**Expect Kalmar quality.** Robust, reliable and with market leading availability, all Kalmar forklifts are designed to last, which is why they command the highest resale values in the market.



**Expect greater value.** Built on our proven platform, our new Essential Range delivers everything you need in a medium sized forklift, without compromise. You get a great machine, at a great price.



**Expect a safer machine.** The safety of your drivers and employees is critically important to us, which is why all Kalmar forklifts come with a wide range of safety features as standard.



**Expect more support.** Kalmar has a full range of support services including Kalmar Care, Kalmar Genuine Parts, Kalmar Insight and the Kalmar Training, where drivers and service technicians can learn more about their new forklifts.



 A quality build with high availability and excellent productivity.





# Keeping your drivers comfortable and safe

## The Essential cabin

The Kalmar Essential cabin has everything your drivers need to operate at their best. The well-designed, spacious cabin offers great visibility both forward and backward. An adjustable seat, power-assisted steering, and easy lift operation with control levers or an optional joy stick. Keeping your drivers comfortable and in full control.

### A safer operating environment.

Every Kalmar forklift comes with non-slip steps and handrails for safe three-point access to the cabin. The cabin has doors on both sides so the driver can exit from either side in case of an emergency. All servicing points are at ground level to reduce the risk of injury from falling. The entire Essential Range of machines complies with the most recent operator health and safety guidelines and can be equipped with additional optional safety features, making your operations as safe as possible.

## Two cabin positions

- Standard mounted cabin
- Raised (300 mm) cabin.



## Three cabin choices



Fully enclosed cabin.

Partially enclosed with no doors.

Full open cabin with no doors or windows.



# Built on a proven platform

We know you want a reliable machine, which is why our forklifts are built on a proven and tested platform. You will benefit from:



**A standard driver interface** across the platform, making it easier for your operators to drive consistently and safely.



**A common electrical system** that helps with quick and easy troubleshooting by using common error codes.



**Proven chassis design** with high stability and durability.



**A colour HMI screen** and control system with improved diagnostic tools, so troubleshooting time is reduced, and high availability is maintained.



Only built with **branded quality components** from leading manufacturers.



**More than 10,000 machines** already built on the G-Generation platform.



 **Easier to drive consistently and safely.**





# Efficient and easy to maintain

## A forklift built for efficiency

The DCG100-180T is available with two Cummins engines. The B4,5 engine compliant for EU Stage V and US Tier 4 final markets, and the QSB4,5 engine for EU Stage IIIA and non-regulated markets. The engines are combined with a highly efficient gearbox and drive axle. Our gear pumps are extremely reliable, easy to service and come in three different capacities, depending on the size of your forklift.

## Easy to maintain, with industry-leading service intervals

Performing daily inspections and routine servicing is quick and convenient with all check points directly accessible at ground level. The electrical cabinet is easy to access and, when the cabin is raised, the hydraulic filters, servicing points and the entire drivetrain can be reached from one location. With industry-leading service intervals of 1000 hours (oil plus filter change), your machine will spend less time being maintained and more time working.

## Extra efficient

### Lifting & lowering speeds

- ↑ from 0,35 m/sec to 0,60 m/sec without load  
from 0,30 m/sec to 0,55 m/sec with load
- ↓ from 0,30 m/sec to 0,40 m/sec without load  
0,40 m/sec with load



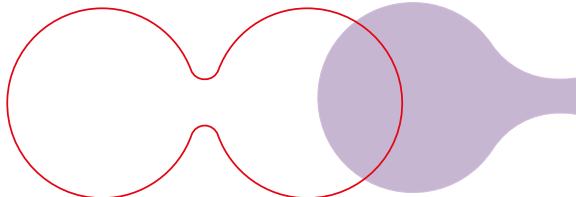
### Top speed

- up to 30km/h uploaded
- up to 28km/h loaded



### Cummins engine ratings

- EU Stage V (EPA Tier 4 final):  
max power 126 kW / max torque 763 Nm.
- EU Stage IIIA (EPA Tier 3):  
max power 123 kW / max torque 624 Nm.





# Options

Kalmar has a range of options for you to choose from:

## For the machine



**Rear Mounted Camera.** Knowing what's going on behind you is critical when other personnel are present. A rear mounted camera can provide real-time information to an in-cabin display, helping improve personnel and driver safety.



**LED Blue Safety Light.** To protect bystanders in noisy environments, a blue LED safety light can be fitted. The safety light projects onto the ground behind the forklift, so bystanders can see which direction the forklift is moving and do not need to rely on hearing the machine.



**Reverse Beeper System.** Working side by side with moving vehicles always involves some safety risks. Installing a reverse beeper system provides a clear acoustic alert when the forklift is reversing, so personnel are sure to stay out of harm's way.



**Speed Limiter.** Allows you to set a safe speed limit on the forklift that your operators cannot exceed.



**Additional lighting.** Extra lighting brings greater operational visibility and safety for personnel working at your site, particularly at night. You can choose from:

- Flashing brake lights when reversing
- Additional lights on the mast (2 pc)
- Additional lights on the cabin roof (2 pc).



**Electronic Inching.** When you are lifting heavy loads, you will need additional power. Electronic Inching allows you to maintain high engine revs for the hydraulic system without engaging the drive in the gearbox. This is achieved by releasing the clutch electronically prior to revving the engine.



**Central Greasing:** By installing a central greasing system, you can be certain that your machine components are fully lubricated when they need to be, no matter where they are or how difficult it is to access them. Keeping them fully lubricated will reduce your servicing and component replacement costs.

## For the cabin

- You can choose to have your cabin mounted 300 mm higher for better visibility.
- Your cabin can be fully enclosed, partially enclosed or fully open.
- You can choose to add air-conditioning or sun screens to protect your drivers from the sun.
- You can choose additional grid protection for enhanced driver safety when handling items that may fall, like wood or other debris.
- Or upgrade to a premium GRAMMER seat with additional dampening for the ultimate in operator comfort.





# 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.





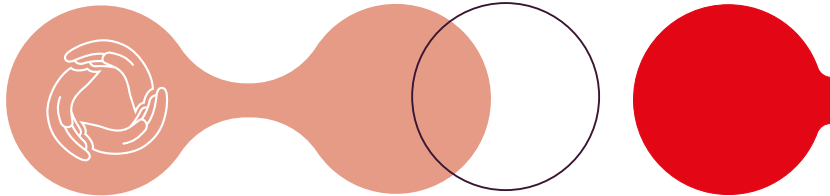
# Keep moving with Kalmar Services

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

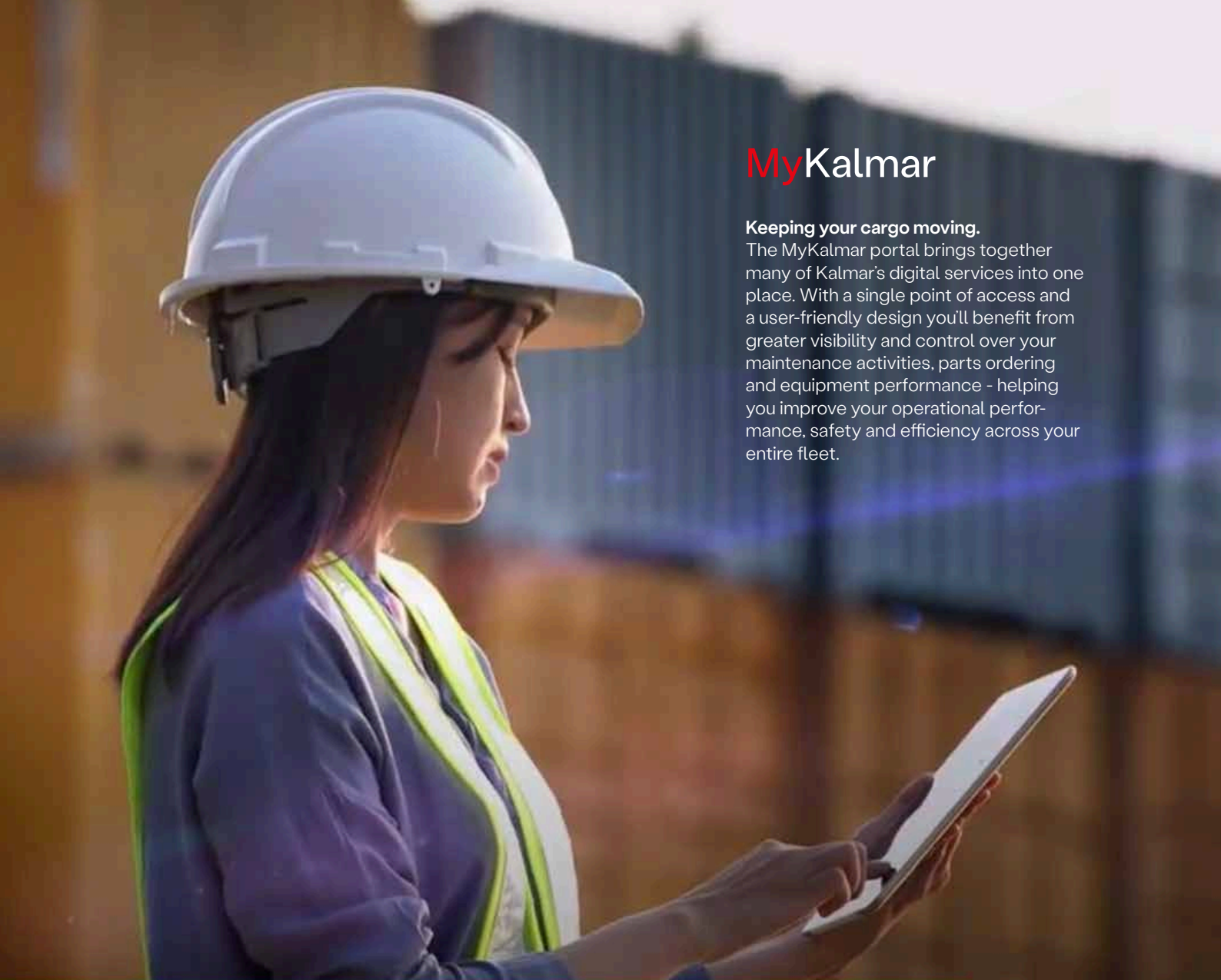
Top-of-the-line service whenever you need it.

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.

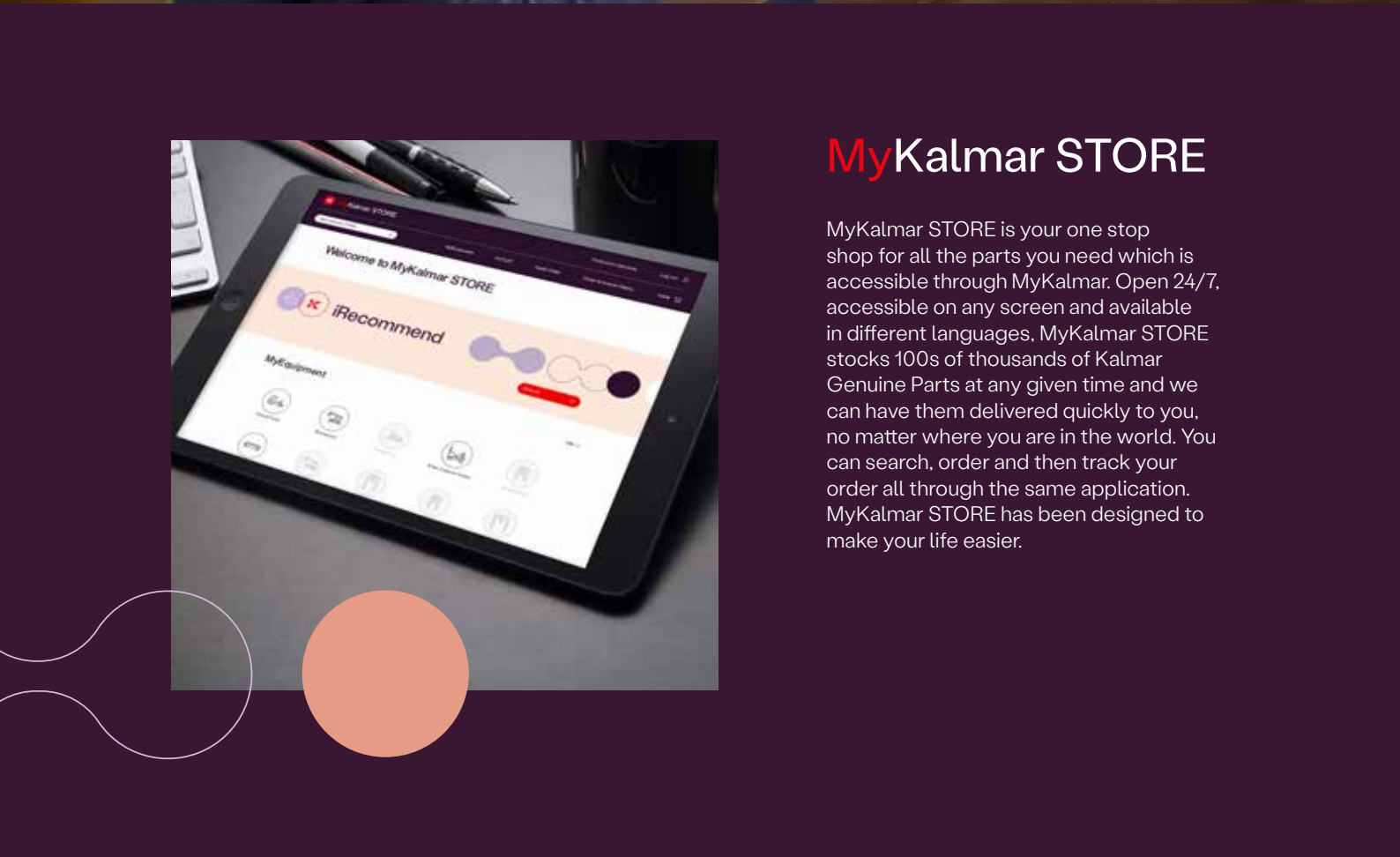
## Kalmar Insight

**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.

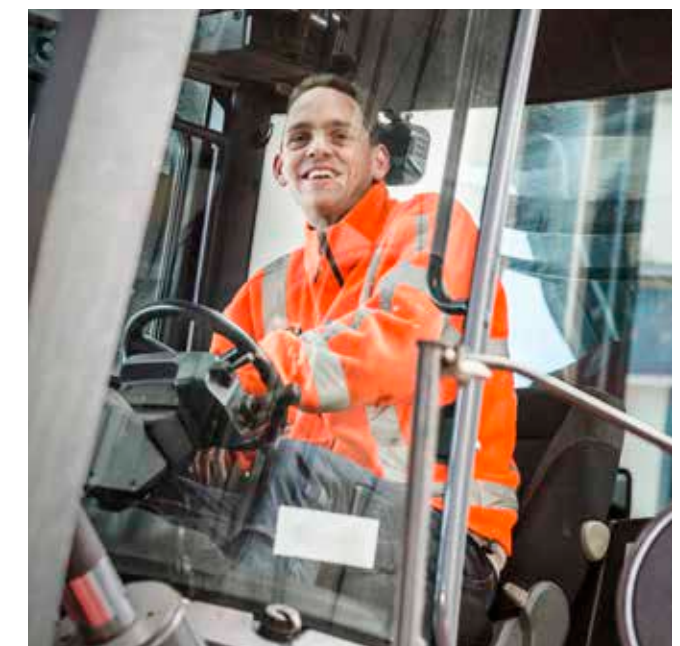


## MyKalmar STORE

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 according

- Machinery Directive 2006/42/EC
- Safety Industrial Trucks Standard ISO 3691-1 + EN 16307-1
- Safety Low & High Lift Trucks Standard ANSI / ITSDF B56.1
- Stability Masted Forklift Trucks Standard ISO 22915-1, -2
- Electrics / Electronics Standard EN 1175
- Electromagnetic Compatibility Directive 2014/30/EC
- Electromagnetic Compatibility Standard EN 12895
- Noise Emission Directive 2000/14/EC and 2005/88/EC
- Noise Emission Standard EN 12053
- CE-marking (EU/EEA)
- ANSI / ITSDF-marking Forklift Trucks (USA/CAN)
- AS-marking (Australia)
- UKCA-marking (UK)
- Supply of Machinery (Safety) Regulations 2008 (UK)

### Chassis

- Strong, durable and welded C-profile heavy-duty 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
- Dual access stairways on left / right sides (steps/handles)
- Lifting eyes and anchor points (front & rear)
- Towing pin through rear counter weight (long handle)

### Body

- Strong and protective steel mudguards (front / rear)
- Long bottom step between the mudguards (anti-slip)
- Short access steps (2x) up to the cabin (anti-slip)
- Big rear view mirrors on front mudguards (2x)
- Lamp brackets on front mudguards (2x)
- Basic noise insulation kit of the forklift

### Steer Axle (Rear)

- Kalmar steer axle mounted dual pivot bearings
- 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 D81 dual-input drive axle with hub reductions
- Maintenance-free oil-cooled Wet Disc Brakes (WDB)
- Dual parking brake, spring loaded & hydraulic release
- High pressure filter (10 µm) for the brakes

### Wheels (Tyres and Rims)

- DCG100-120T: diagonal tyre 11.00x20" / rim 8.00x20"
- DCG127-160T: diagonal tyre 12.00x20" / rim 8.00x20"

### Drivetrain

- Cummins 4.5, EU stage 3 & 5 (EPA Tier 3 & 4-Final)
- 4-cylinder diesel engines with pre-heater
- High power & torque with low fuel consumption
- Engine monitoring and protection systems
- Automatic transmissions ZF 3WG-161
- 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 (170 lit) incl. breather filter

### Fixed pistons hydraulics

- Pumps for mast, tilt, fork carriage, brakes & steering
- Fixed pump for brake pressure & oil cooling
- Pressure filter for hydraulics / brakes (2x/10 µm)
- Pressure filter for hydraulics / brakes (10 µm)

- Power steering, power brakes & ORFS-couplings
- Hydraulic tank (220 lit), cooling, breather filter, level glass & ORFS-couplings
- Parker piston pumps (2x)
- Main control valve, steering valve and accumulator
- Mast tilt angles: FW +5 / BW -10 deg (15 deg)

### Lifting 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 pads
- Large shafts-bearing for mast, strong tilt fixation

### Fork Carriage

- Large selection of fork carriages, types and optionals
- Carriage with strong wheels, bearings & guide pads
- Widths: 2450 mm (100-140) / 2500 mm (150-180)

### Forks

- Large selection of fork dimensions, tapering and designs
- Cross sections: (100-140), 200 x 65 mm / (150-180), 250 x 100 mm
- Fork mountings of roller-type
- Tapering: Standard 0-200 mm full thickness (fork length is 1600 mm or shorter)
- Tapering: Standard 0-600 mm full thickness (fork length above 1600 - 2400 mm)
- Tapering: Standard 0-1200 mm full thickness (fork length above 2400 mm)

### Electrical System (24V)

- Battery box, batteries 24V and main power switch
- Electric cabinet, mounted inside cabin
- 2 LED working lights on front mudguards (main beam)
- 2 LED working lights on mast (first cross member)
- 2 LED working lights on rear counter weight
- 4 directional blinker lights (front / rear)
- 2 tail / 2 brake LED-lights rear in counter weight

### Cabin - essential

#### Structure

- Spacious, modern cabin with good ergonomoy level
- Strong profiles, pillars and cross members
- FOPS certified drivers cabin (Falling object 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

- Drivers seat, mech. spring suspension, medium back
- Comfort seat, adjustable, sensor & 2-point belt
- Work console; lift levers, controls, lamp buttons etc
- Inside rear view mirror (right 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)
- Button for electronic hand brake (on/off)
- Safety override for hydraulic functions (by code)
- 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 1.7 kW (5800 Btu)
- High-capacity ventilation unit - max air flow 410 m3/h
- Multiple individual blowers (4x upwards)
- Fresh air and recirculation filter (replaceable)
- Single wiper / washer on front window (larger area)

### 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

- Chassis, tanks & mudguards: Red RAL 3000
- Mast, carriage, forks and axles: Black RAL 7021
- Cabin: Iron-Grey RAL 7011
- Rims: Iron-Grey RAL 7011

### Documentation & Decals

- Load chart diagram inside cabin
- Machine data sign on chassis (LHS) including load chart
- Warning, tyre pressure & oil pressure stickers
- Lift lever and function stickers in cabin
- Fuse diagram
- Instruction manual
- Maintenance manual, digitally
- Spare parts catalogue, digitally

### Warranty

- Kalmar standard warranty: 12 months / 2.000 hoursIndicator lamps:
  - Direction indication
  - Parking brake

# Options

### Chassis/Body

- Models with standard and short wheelbases
- Wheelbase 3000 - 3750 mm
- Anti-slip strips: mudguards, tanks & lamp brackets
- Extra mud flaps (front and rear)
- Steel grid protections: fender, mast & rear
- Stacking box for wood stick (LHS or rear)
- Additional Stacking box for wood stick (LHS or rear)

### Wheels (Tyres and Rims)

- Spare wheels, tyres and rims of various brands
- Diagonal and radial tyres of well known brands
- Radials: Continental RT20 and Michelin XZM
- Super-elastic (CSE): Soli-Deal CSE
- Other brands up on request
- Stronger rim 8,50x20" (repl standard 8.00x20")

### 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 oil cooler unit (on RHS) for brakes
- Mast tilt angles: FW +11 / BW -8 deg (19 deg)
- Mast tilt angles: FW +14 / BW -11 deg (25 deg)
- Functions for attachments (paper, steel, precast)

### Lifting Mast

- Duplex Standard (no FL): lift heights DCG100-140 T 3.00 - 7.00 m, DCG100-180t 3.00 - 7.00 M,
- Duplex Freelift (full FL): lift heights 3.00 - 7.00 m
- Triplex Freelift (full FL): lift heights 4.50 - 7.00 m
- Duplex Heavy-Duty (no FL): lift heights 4.00 - 6.00 m
- Other lift heights / closed heights upon request

### Fork Carriage

- Fixed carriage: manual moving forks (width 2.50 m)
- Sideshift carriage: manual moving forks (width 2.50 m)
- Sideshift/fork positioning: (width 2.50 / 2.95 / 3.45 m)
- Sideshift/fork position: pin-type (width 2.50 m)
- Sideshift/fork position + center levelling: (width 2.50 m)
- Attachments: carriage sides, chain brackets & hoses
- Attachment of various brands for factory integration

### Forks

- See fork dimensions under Specifications
- Length: 1200 up to 2400 mm in steps (special)
- Width: 200 - 250 mm / 300 - 400 mm
- Thickness: 65, 70, 80, 90 - 100 mm
- Fork mountings: roller-type, pin-type, FSS or manual
- Tapering: standard 0-600 mm full thickness / 600-tip with taper
- 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)
- Hydraulic levelling fork (up/down) on left fork or / and right fork

### Electrical System (24V)

- Tuner FM-AM, RDS, MP3, USB, Bluetooth, Stream
- Tuner FM-AM, RDS, MP3, USB, Bluetooth, Stream / DAB
- Power sockets: 1x24V and 1x12V (in door columnns)
- Electric air pressure horn
- Reverse alarm (beeping or white noise - multi frequency)

### Lamps

- 2 extra LED working lights - in mast (FW)
- 2 extra LED working lights - rear on cabin (FW)
- 2 extra LED working lights - front on cabin roof
- 1 LED rotating warning beacon (on adjustable pole LHS)
- Blue safety light, rearward (when reversing) or forward
- Red safety light, rearward (when reversing) or forward
- Rotating beacon LED, activated via reverse gear

### 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 technn.)
- Speed restriction set by customer in display: default 15 km/hv
- Tyre pressure monitoring system (TPMS / Bluetooth)
- Alcolock Draeger in cabin

### Cabin Essential

#### Structure

- Elevated cabin 300 mm
- 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
- Electric cabin tilt pump (up/down)
- External cabin reverse mirrors (2x)

#### Comfort

- 3-point seat belt
- Headrest for driver's seat
- Armrest adjustable left side
- Seat cover in vinyl
- Grammer Actimo XL, 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)

#### Indicator lamps

- Head beam
  - Direction indication (blinkers)
  - Parking brake

### Climate

- AC & ventilation
- Sun visors front, roof and rear windows
- Single wipers / washers on roof and rear windows
- Interval wiper functions on front, roof and rear windows
- Air conditioning system

### 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)
- 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
- 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

### Information Systems

- VDI - Vehicle Data Interface
- With EDM you can optimise productivity, performance and operational time

### 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

### 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				DCG 100-6T	DCG 120-6T	DCG 127-6T	DCG 140-6T
	Rated capacity		Q	kg	10000	12000	12700	14000
	Load centre distance		L4	mm	600	600	600	600
FORKLIFT DIMENSIONS	Truck length (to fork face front)		L	mm	4720	4725	4725	4985
	Distance, centre drive axle - fork face		L2	mm	895	900	900	910
	Wheelbase		L3	mm	3000	3000	3000	3250
	Truck width (over tires)		B	mm	2510	2510	2540	2540
	Roof height cabin (basic forklift)		H6	mm	2895	2895	2920	2920
	Seat height EGO		H8	mm	1745	1745	1770	1770
	Height / width, max (with tilted cabin)		T1 / T2	mm	3370 / 3350	3370 / 3350	3395 / 3380	3395 / 3380
	Track (c-c), front / rear		S1 / S2	mm	1840 / 1960	1840 / 1960	1855 / 1960	1855 / 1960
	Turning radius, outer / inner		R1 / R2	mm	4180 / 75	4180 / 75	4180 / 75	4360 / 125
	Aisle width min, at 90° driving with forks		A1	mm	6470	6475	6475	6665
	Aisle width min, at 90° stacking 20ft / 40ft		A1 / A2	mm	-			
	Ground clearance, min			mm	330	330	350	350
LIFTING EQUIPMENT <sup>4</sup>	Duplex	Lifting height <sup>1</sup>	H4	mm	5000			
	Standard	Lifting height to twistlocks, min	H10	mm	-			
		Mast height, min	H3	mm	4015			
		Mast height, max	H5	mm	6515	6535		
		Mast tilt, forward – backward	α – β	°	5 / 10			
	Forks	Width x Thickness	b x a	mm	200 x 65	200 x 70	200 x 70	200 x 80
		Length	l	mm	1200	1200	1200	1200
		Forks position, outside width, min-max.	V	mm	570 / 2330			
		Forks sideshift, max stroke at opening (c-c) <sup>2</sup>	V1 – V	mm	± 440 / 1450			
		Fork carriage width*	b3	mm	2450			
	Spreader width, min	b3	mm	-				
WEIGHTS		Service weight <sup>3</sup>		kg	16 200	16 700	17 200	17 500
	Axle load	Unloaded (front)		kg	8 700	8 800	8 800	9 000
		At rated load (front)		kg	23 700	26 700	27 850	29 500
	Axle load	Unloaded (rear)		kg	7 500	7 900	8 400	8 500
		At rated load (rear)		kg	2 500	1 900	2 050	2 000
WHEELS	Wheels	Number of wheels, front – rear (x = driven)			4 – 2			
	Tires	Pneumatics, type / pressure (front - rear)			Diagonal / 0.9			
		Dimensions, front – rear		tum	11.00x20"/PR16		12.00x20"/PR20	
	Rims	Dimensions, front – rear		tum	8,00x20"			
AXLES	Steer axle	Manufacturer, type - designation			Kalmar steer axle / Power steering / double acting single cylinder			
	Drive axle	Manufacturer, type - designation			Kessler D81-PL478-NLB / drive axle with differential and hub reduction			
		Service brakes, type – affected wheels			Oil cooled wet disc brakes (WDB) / drive wheels			
		Parking brakes, type – affected wheels			Single dry disc / spring activated - hydraulic release / drive wheels			
HYDRAULICS	Hydraulics	System type / pump type			Load-sensing / power -on-demand / piston pumps			
	Oil	Max working pressure		MPa	17.0	17.5	18.0	19.0
	Tank	Oil volume		Lit	220			
		Fuel tank, capacity		Lit	170			
		AdBlue tank, capacity		Litre	25			

- Notes:
- Technical data: mast is Duplex Standard with 5000 mm lift height.
  - Technical data: fork carriage is SideShift / Fork Position (SSFP).
  - Service weights / axle loading: with standard configuration.
  - Other lift mast, carriages and forks or attachments upon request.
  - DCG70-35E3 / E4 mast stroke (H4) = 7000 / 10000 mm - twistlock height (H10) = 2225 mm.

DCG 150-6T	DCG 100-12T	DCG 120-12T	DCG 150-12T	DCG 160-6T	DCG 160-9T	DCG 160-12T	DCG 180-6T	DCG 70-35E3T	DCG 70-35E4T <sup>6</sup>
15000	10000	12000	15000	16000	16000	16000	18000	7000	7000
600	1200	1200	1200	600	900	1200	600	1220	1220
5055	5065	5315	5325	5305	5315	5575	5065	5595	5845
980	990	990	1000	980	990	1000	990	1265	1265
3250	3250	3500	3500	3500	3500	3750	3250	3500	3500
2540	2540	2540	2540	2540	2540	2540	2540	2540	2900*
2920	2920	2920	2920	2920	2920	2920	2920	2920	2920
1770	1770	1770	1770	1770	1770	1770	1770	1770	1770
3395 / 3380	3395 / 3380	3395 / 3380	3395 / 3380	3395 / 3380	3395 / 3380	3395 / 3380	3395 / 3380	3395 / 3380	3395 / 3380
1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	1855 / 1960	2210 / 1960
4360 / 125	4360 / 125	4785 / 420	4785 / 420	4785 / 420	4785 / 420	5175 / 600	4570 / 270	4785 / 420	4785 / 420
6735	7945	8370	8380	7160	8160	8770	6745	-	-
-				-				9300 / 14000	9300 / 14000
350	350	350	350	350	350	350	350	350	350
5000				5000				9225	12225
-				-				2225	2225
4195	4195	4195	4195	4195	4195	4195	4195	5575	7075
6535	6535	6535	6535	6535	6535	6535	6535	9075	12075
5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	5 / 10	3 / 5	3 / 5
200 x 80	220 x 90	220 x 90	250 x 100	200 x 80	220 x 90	250 x 100	220 x 90	-	-
1200	2400	2400	2400	1200	1800	2400	1200	-	-
600 / 2360	640 / 2360	640 / 2360	700 / 2360	600 / 2360	640 / 2360	700 / 2360	640 / 2360	-	-
± 440 / 1480	± 430 / 1500	± 430 / 1500	± 415 / 1530	± 440 / 1480	± 430 / 1500	± 415 / 1530	± 430 / 1500	± 140	± 140
2500	2500	2500	2500	2500	2500	2500	2500	2450	2450
-				-				6064	6064
19 800	19 100	20 300	22 900	19 600	21 600	23 100	21700	25300	27400
10 300	10 500	10 700	10 900	10 400	10 600	11 200	10400	15900	17500
32 600	27 200	30 200	35 300	33 600	35 200	36 600	37200	28000	29600
9 500	8 600	9 600	12 000	9 200	11 000	11 900	11300	9400	9900
2 200	1 900	2 100	2 600	2 000	2 400	2 500	2500	4300	4800
4 – 2				4 – 2				4 – 2	
Diagonal / 0.9				Diagonal / 0.9		Diagonal / 1.0	Radial / 1.0	Diagonal / 0.9	
12.00×20"/PR20				12.00×20"/PR20			12.00R20	12.00×20"/PR20	
8.00x20"				8.00x20"			8.50x20"	8.00x20"	
Kalmar steer axle / Power steering / double acting single cylinder									
Kessler D81-PL478-NLB / drive axle with differential and hub reduction									
Oil cooled wet disc brakes (WDB) / drive wheels									
Single dry disc / spring activated - hydraulic release / drive wheels									
Load-sensing / power -on-demand / piston pumps									
16.5	12.5	15.0	17.0	17.0	17.5	18.0	19.0	20.0	20.0
220				220				220	
170				170				170	
25				25				25	



# Performance

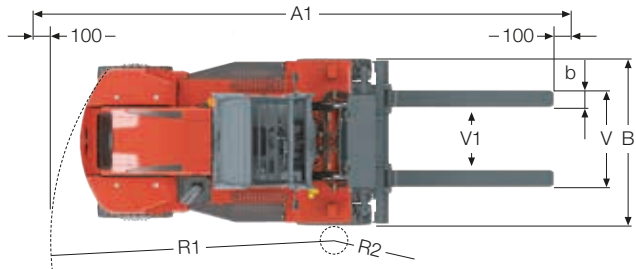
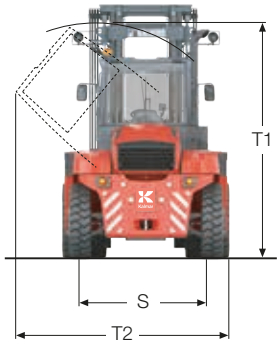
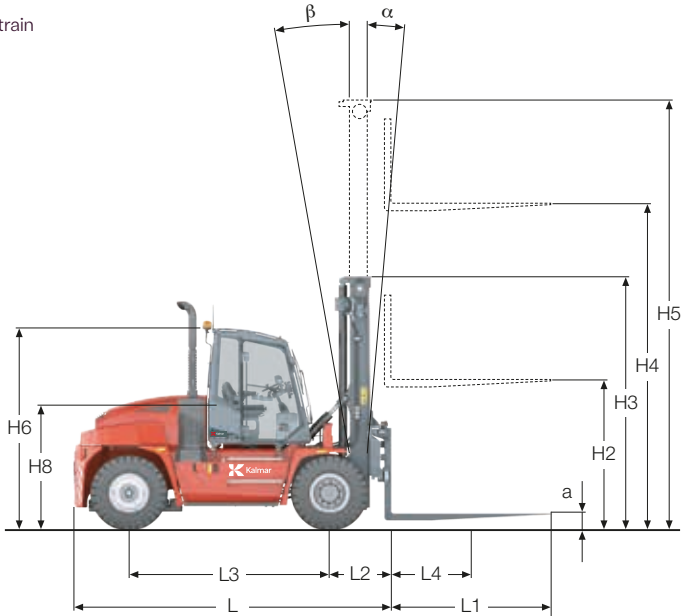
MODELS				DCG	DCG	DCG	DCG
	All wheelbases (standard and short)			100-6T	120-6T	127-6T	140-6T
Cummins engine				QSB4.5-C160 (EU stage IIIA / EPA Tier 3)			
SPEEDS	Travel speed, forward - reverse	Unloaded	km/h	29 - 29	29 - 29	30 - 30	30 - 30
		At rated load	km/h	28 - 28	28 - 28	28 - 28	28 - 28
	Lifting speed	Unloaded	m/s	0.45	0.35	0.35	0.35
		At rated load 70%	m/s	0.40	0.30	0.30	0.30
	Lowering speed	Unloaded	m/s	0.40	0.40	0.40	0.40
		At rated load	m/s	0.40	0.40	0.40	0.40
POWER	Gradeability, max	Unloaded	%	94	89	79	77
		At rated load	%	46	42	38	36
	Gradeability, at 2 km/h	Unloaded	%	66	64	58	56
		At rated load	%	36	33	30	28
	Drawbar pull		kN	109	109	105	105
SOUND	Noise level, inside (with EDM¹)	EN12053, LpAZ	dB(A)	73 - 75			
	Noise level, outside (with EDM¹)	EN12053, LWAZ	dB(A)	103 - 105			
	Noise level, outside (with EDM¹)	2000/14/EC, LWAZ	dB(A)	106 - 109			

MODELS				DCG	DCG	DCG	DCG
	All wheelbases (standard and short)			100-6T	120-6T	127-6T	140-6T
Cummins engine				B4.5-C165 (EU stage V / EPA Tier 4-Final)			
SPEEDS	Travel speed, forward - reverse	Unloaded	km/h	29 - 29	29 - 29	30 - 30	30 - 30
		At rated load	km/h	28 - 28	28 - 28	28 - 28	28 - 28
	Lifting speed	Unloaded	m/s	0.60	0.50	0.50	0.50
		At rated load 70%	m/s	0.55	0.45	0.45	0.45
	Lowering speed	Unloaded	m/s	0.35	0.30	0.30	0.30
		At rated load	m/s	0.40	0.40	0.40	0.40
POWER	Gradeability, max	Unloaded	%	88	83	74	72
		At rated load	%	44	40	36	34
	Gradeability, at 2 km/h	Unloaded	%	73	70	63	61
		At rated load	%	39	35	32	30
	Drawbar pull		kN	105	105	101	101
SOUND	Noise level, inside (with EDM¹)	EN12053, LpAZ	dB(A)	70 - 72			
	Noise level, outside (with EDM¹)	EN12053, LWAZ	dB(A)	103 - 105			
	Noise level, outside (with EDM¹)	2000/14/EC, LWAZ	dB(A)	106 - 109			

DCG	DCG	DCG	DCG	DCG	DCG	DCG	DCG	DCG	DCG
150-6T	100-12T	120-12T	150-12T	160-6T	160-9T	160-12T	180-6T	70-35E3T	70-35E4T
QSB4.5-C160 (EU stage IIIA / EPA Tier 3)									
30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	29 - 29	29 - 29
27 - 27	28 - 28	28 - 28	27 - 27	27 - 27	27 - 27	27 - 27	27 - 27	27 - 27	27 - 27
0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.40	0.60	0.60
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.35	0.55	0.55
0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.30	0.35	0.35
0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
64	67	62	55	65	57	52	60	39	35
32	39	35	30	31	29	28	28	30	28
48	50	47	42	49	43	40	45	33	30
25	31	27	24	25	23	22	22	25	24
105	105	105	105	105	105	105	105	90	90
73 - 75				73 - 75				73 - 75	
103 - 105				103 - 105				103 - 105	
106 - 109				106 - 109				106 - 109	

DCG	DCG	DCG	DCG	DCG	DCG	DCG	DCG	DCG	DCG
150-6T	100-12T	120-12T	150-12T	160-6T	160-9T	160-12T	180-6T	70-35E3T	70-35E4T
B4.5-C165 (EU stage V / EPA Tier 4-Final)									
30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	30 - 30	29 - 29	29 - 29
27 - 27	28 - 28	28 - 28	27 - 27	27 - 27	27 - 27	27 - 27	27 - 27	28 - 28	28 - 28
0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.60	0.60
0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.55	0.55
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.35	0.35
0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
60	63	58	50	61	54	49	53	46	42
30	37	33	28	30	28	27	26	35	32
52	54	50	43	52	46	43	46	39	35
27	33	29	24	26	25	24	23	30	28
101	101	101	101	101	101	101	101	104	104
70 - 72				70 - 72				70 - 72	
103 - 105				103 - 105				103 - 105	
106 - 109				106 - 109				106 - 109	

Notes:  
1. Eco Drive Mode (EDM) drivetrain settings included.





Drivetrain

MODELS	Models		DCG100T-180T	DCG100T-180T
	Wheelbase	mm	3000 - 3750	3000 - 3750
ENGINE	Drive motor, manufacturer - type designation		Cummins QSB4,5-C160	Cummins B4,5-C165
	Fuel types, motor type¹		Diesel / HVO / 4-stroke	Diesel / HVO / 4-stroke
	Turbo charger / cooling		Turbo (FGT) + Intercooler	Turbo (FGT) + Intercooler
	Engine after treatment type		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	119 / 2200	123 / 2200
	Peak power / at revs (ISO 3046)	kW / rpm	123 / 2000	126 / 2000
	Peak torque / at revs (ISO 3046)	Nm / rpm	624 / 1500	763 / 1200
	Number of cylinders / displacement	lit (in2)	4 / 4.500 (272)	4 / 4.500 (272)
GEARBOX & MISC	Fuel consumption, normal driving¹	lit/h	6 - 10	6 - 10
	AdBlue² consumption, normal driving	%	-	4 - 6
	Manufacturer's type designation		ZF 3WG-161	ZF 3WG-161
	Clutch, type		Torque converter	Torque converter
	Gearbox, type		Hydrodynamic Powershift	Hydrodynamic Powershift
	Eco Drive Mode (EDM)³ drivetrain settings		3 modes / Eco, Normal & Power	3 modes / Eco, Normal & Power
	Numbers of gears, forward / reverse	W	3 / 3	3 / 3
	Alternator, type / power	V / Ah	AC / 1960 (28V x 70A)	AC / 1960 (28V x 70A)
	Starting battery, voltage / capacity		2x12	2x12

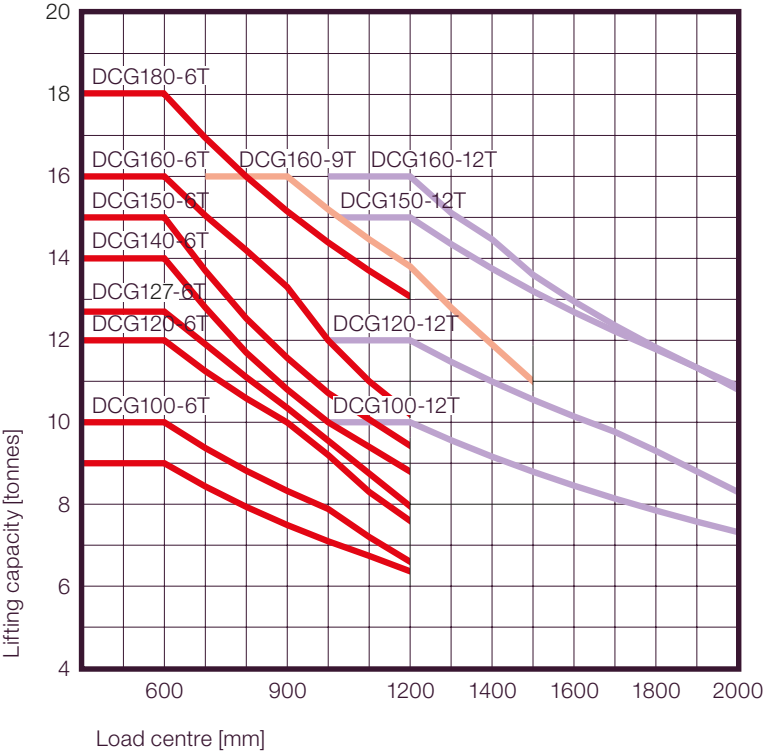
Notes:

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. Eco Drive Mode (EDM) drivetrain settings included.

Lifting Capacities





# Lifting data

DUPLEX STANDARD (2-stage)	DCG100T-140T				DCG100T-180T			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
	3000	3015	4515	–	3000	3195	4695	–
	3250	3140	4765	–	3250	3320	4945	–
	3500	3265	5015	–	3500	3445	5195	–
	3750	3390	5265	–	3750	3570	5445	–
	4000	3515	5515	–	4000	3695	5695	–
	4500	3765	6015	–	4500	3945	6195	–
	5000	4015	6515	–	5000	4195	6695	–
DUPLEX FREE LIFT (2-stage)	DCG100T-140T				DCG100T-180T			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
	3000	3015	4515	1500	3000	3195	4695	1500
	3250	3140	4765	1625	3250	3320	4945	1625
	3500	3265	5015	1750	3500	3445	5195	1750
	3750	3390	5265	1875	3750	3570	5445	1875
	4000	3515	5515	2000	4000	3695	5695	2000
	4500	3765	6015	2250	4500	3945	6195	2250
	5000	4015	6515	2500	5000	4195	6695	2500
TRIPLEX FREE LIFT (3-stage)	DCG100T-140T				DCG100T-180T			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
	4500	2970	5970	1500	4500	3130	6190	1500
	5000	3137	6470	1667	5000	3297	6690	1667
	5500	3303	6970	1833	5500	3463	7190	1833
DUPLEX HEAVY-DUTY (2-stage)	DCG100T-140T				DCG100T-180T			
	Lift Height	Mast Height		Free Lift	Lift Height	Mast Height		Free Lift
	H4	H3 min	H5 max	H2	H4	H3 min	H5 max	H2
	4000	4065	5885	–	4000	4065	5885	–
	4500	4315	6385	–	4500	4315	6385	–
	5000	4565	6885	–	5000	4565	6885	–

## Masts



Duplex Standard  
Lift height  
3000 - 7000 mm



Duplex Freelift  
Lift height  
3000 - 7000 mm



Triplex Freelift  
Lift height  
4500 - 7000 mm



Duplex Heavy Duty  
Lift height  
4000 - 6000 mm

## Carriages



Carriage with Sideshift



Carriage with Sideshift /  
Fork Positioning




Carriage with Sideshift /  
Fork Positioning and Centre  
Levelling

## Forks



Fork Shaft System  
Roller Bearing  
(hook on type)



Forks with Integral  
Roller Bearings and  
Fork Levelling

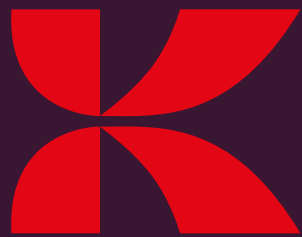


Forks with Integral  
Roller Bearings



Forks with Integral  
Pin Type Roller Bearings





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