

Technical Description DRG450-65S5XE, B11401277, 2020 model

Model

Strong, durable heavy-duty chassis for reachstackers. Safe access steps, platform & handrails (on LHS) including long bottom access step, lifting eyes and anchor points (front & rear) and towing pin (rear - incasted). Good visibility in all directions including the rear of the truck. Fully open chassis with great access to the driveline and hydraulics including easy-to-open cover plates (low noise).

DRG450-65S5XE

Kalmar laden toplift container handling Eco Reachstacker

To stack 8'6" containers up to 5-high and stack 9'6" containers up to 5-high (S5/5)

Wheelbase = 6.500 mm, wheel dimension = 18.00x33" and extra counter weight

Strong and powerful reachstacker with increased extra handling capacity

Capacity in first row:

8'6" containers: 45.000 kg capacity - stacking 1/2/3/4/5-high

9'6" containers: 45.000 kg capacity - stacking 1/2/3/4/5-high

Capacity in second row:

8'6" containers: 38.000 kg capacity - stacking 1/2/3/4/5-high

9'6" containers: 38.000 kg capacity - stacking 1/2/3/4-high

Capacity in third row:

8'6" containers: 21.000 kg capacity - stacking 1/2/3/4-high

9'6" containers: 21.000 kg capacity - stacking 1/2/3-high

Lifting Boom:

Strong, durable welded 2-stage duplex boom, with box-type and telescopic designs.

Low-maintenance bearings for rear boom pivot and lift cylinder ends.

Low-friction guide pads between inner and outer boom or durable operation.

Two lifting cylinders mounted in chassis/boom, one extension cylinder inside the boom, extension stroke of 7.000 mm for handling of up to 3-rows deep, normal boom nose.

Attachment / spreader:

Container handling top lift spreader, capacity 45 tons, telescopic 20ft-40ft, 2 hydraulic rotation motors and 2 hydraulic rotation brakes, for durable and safe handling.

Spreader functions:

Sideshift \pm 800 mm (total 1.600 mm)

Mechanical pile slope \pm 5 deg (side tilt / leveling by gravity)

Powered rotation + 195 / - 105 deg

End beams with 4 strong lift hooks for slings (4 x 11,25 tons capacity)

Four (4) floating ISO twistlocks in end beams

Safety locking, with 4 alignment pins and 4 sensors, in twistlock end beams

LED lamp indication panel, mounted on the boom nose, for container handling

LED head-up indication display, mounted inside the cabin, for container handling

Hydraulic sliding cab including load center limitation for lifting boom

The cab is operated by a hydraulic motor and chain drive, stroke is 2.375 mm

The cab can be moved FW/BW when door is closed and seat belt is used

Includes rear view mirrors on front fenders

Volvo diesel engine model TAD-873-VE:

Low-emission approved EU stage 4 / EPA Tier 4-Final with SCR technology, AdBlue, additional light EGR, electronic control and CanBus monitoring.
6-cylinder inline, turbo charger and intercooler, volume 7.70 lit
Power, max 235 kW at 1.700 rpm
Torque, max 1.310 Nm at 1.100-1.600 rpm

Protection system for engine and transmission

* Oil change at 500 h and filter change at 500 h (without oil sampling)

** Oil change up to 1.000 h and filter change up to 1.000 h (*with approved oil sampling)

Dana-Rexroth Continuous Variable Transmission of model R2-RS / CVT:

Fully automatic powersplit / CVT transmission
with electronic control and CanBus monitoring
Hydrostatic 1st speed and mechanical drives in 2nd and 3rd speed forward
Hydrostatic 1st speed and mechanical drive in 2nd speed reverse
3 speed forward and 2 speed reverse
Directional lockout protection - forward / reverse

With 3x Eco Drive Modes (EDM) for different driver and utilization settings
With 2x Eco Brake Modes (EBM) for different driver and utilization settings
More efficient VISCO cooling package, incl two electric extra radiators, the fuel consumption and noise level are reduced.

Cab

Kalmar Ego Cabin, complete with all instrumentation.

All switches in cab equipped with LED lights

Head-up display in LED for twistlock indication

2 X 24V outlet in door columns

Manual moveable cabin for service & inspection (stroke 2.375 mm)

Standard seat, mechanical spring, 2-point safety belt and high backrest

Armrest right hand side - easy to adjust

Tinted/Laminated windows incl sliding windows in left and right door

Horn

Complete doors with handle, key lock and air damper (2 pcs / left & right side)

Complete maneuver system right hand console incl std display (electric adjustable)

Multi function level left side incl horn, direction indicator, high and low beam

Speed control pedal right side

Automatic gear shift

Brake pedals left and right side

Internal comfort incl mirrors, handles, interior lighting etc

Wipers and washers front, rear and roof window

Steering wheel with steering wheel knob

Adjustable control, steering wheel console and switch panels

Ergonomic Joystick for boom and attachment functions incl. forward/reverse

Safety override for hydraulic functions (by code)

Automatic increase of rpm at lifting/extension

Electronic Climate Control (ECC) including Air Conditioning and fresh air inlet filter

ECC switched off when door is open

Display DP250 (colour) and menu control with toggle wheel:

ECO Drive Modes (EDM)

- Power mode

- Normal mode

- Economy mode

Clock and date
Status of heating system
Status of aircondition system
Fuel level
Engine speed
Scale
Travelling speed
Operating time in hours
AdBlue level(in combination with specific engine)
Estimated operating hours to empty tank in hours and minutes
Current speed in km/h
Engine coolant temperature
Engine oil pressure
Engine's oil level in percent(only available for Volvo)
Transmission oil temperature
Hydraulic oil temperature
Battery voltage in volts
Service time indicator
Parking brake
Boom angle and boom extension
Various information via Pop-Up menus for example:
High temperature brake system
Low hydraulic oil pressure in brake system
High or low pressure on steering axle
High coolant temperature

- Operators seat Isringhausen 6830KA/870 air cushioned, heated driver seat with 3 point seat belt
- Head rest for driver seat
- An extra seat is added to the left side of the cabin, next to the driver. Incl two point safety belt. Required for operation with a passenger/instructor. Can be folded away when not in use for easier cabin access.
- Extendable/retractable net visor for front windscreen sun protection.
- Extendable/retractable net visor for roof windscreen sun protection.
- Holder for terminal and monitor, right side
- Heavy duty electric air pressure horn
- Mini-steering including forward/reverse switch
- DAB Tuner RDS/MP3/USB/AUX/Bluetooth/Handsfree/Streaming/CD
- 24/12 V converter including four 20 Amp sockets in front cab posts. One 12V socket, one 5V USB socket, and two 24V sockets in the cabin.
- Parking heater (pause heater) system in cabin. Re-uses residual engine heat when engine is turned off to maintain cabin temperature for shorter periods of time depending on outside ambient temperature.
- Cab heater incl. 220 V outlet

Steering axle

Kalmar steer axle with dual pivot bearings, mechanical side stops (± 3 deg), el-servo power steering with double acting cylinder. The steer axle gives narrow turning radius.

- **Reduced steering radius:**
18.00X25 will get reduced steering radius with approximately 2000mm.
18.00X33 will get reduced steering radius with approximately 500mm.
The tire wear will be reduced.
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Drive train Heavy duty drivetrain with powerful diesel engines and efficient transmissions

- **Engine and ignition automatically stop after a set period of time (default delay is 10-minutes - delay time can be changed by a service technician).**
Conditions for auto-stopping the engine:
Machine has reached operating temperature.
Battery charging status is OK.
Machine stationary in neutral position at idling speed.
Load handling functions inactive.
Parking brake is activated.
- **Automatic start/stop function, the engine is stopped when the machine is considered to be inactive and the engine is started automatically when work is resumed.** Only available on Volvo drivetrains.

Hydraulics

- **High pressure filter**

Chassis

Body work with safe access steps including anti-slip protection, rear view mirrors (2x) positioned on front mudguards. Strong and protective mudguards (front & rear).

- Rubber (black color) mud flaps attached to rear steering wheel well fenders.
- Rubber (black color) mud flaps attached to front wheel well fenders.
- Anti-slip protection tape (black color) on fenders and tanks, for increased traction when stepping on the machine.

Electrics

- Two (2) additional working lights LED, mounted on lifting boom
- Extra working light, LED 4 pcs, fitted in the front of boom
- Extra reverse light, LED 2pcs on rear light bracket
- Electric heated adjustable rear view mirrors on front light bracket 1pcs/side
- Speed warning at 15km/h
- Speed limitation outside transport mode
- Reversing alarm with on/off switch
- Extra reverselight on front fenders bwd for light on steering wheels
- Bluespot activated via reverse gear

Tires and rims

- **Continental diagonal tires V-PLY - 6pcs**

Colour

Chassis: Red (RAL 3000)
Cab: Grey (RAL 7037)
Boom, spreader Black RAL 7021
Decals/logos/stripes: White (RAL 7047)

Documentation

The following documentation is included as standard:
* Instruction manual
* Maintenance manual
* Individual parts catalog

Extra equipment

- Chassis mounted central lubrication system that automatically greases points on the base machine. 2 kg pump. See drawing for schematics.
- Central greasing system - Toplift/Tool Carrier/OHC 16/20/16 points, that automatically greases points on the base machine. 2 kg pump. See drawing attached for schematics.
- Extra insulation for sound reduction of 3 dB(a)
- Twistlock cameras (2pcs) mounted into spreader endbeams. Wide angle and heated lens.
- Ultrasonic reverse warning system with sensors mounted on either side of the rear wheel arches facing backwards. Includes a reverse warning camera and 7" (17cm) monitor mounted on the right side of the cabin. 4 ultra sonic sensors have an operating range of 0.5-9m and Camera will detect obstacles within a 104 degree arch of the rear of the machine.
Camera and display std for 7.5-9.25 m wheelbase.
- Tyre air pressure monitoring system integrated into cabin display. Individual bluetooth sensors on each tire (6 pcs).
- Automatic fire suppression system
- SmartFleet Monitoring License Package - 1 year Note! Only approved in specified countries.

- 2x22,5 ton liftinghole in spreader
- Inverter fra 24v til 220v

Attachments

- Two (2) degrees of controlled tilt on the standard container spreader from the straight position. Including tilt lock which also automatically reduces machine speed to 5 km/h.
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