

The Kalmar

# ELECTRIC REACHSTACKER



ERG420-450



# The time is now to go

# ELECTRIC

Kalmar's electrically powered reachstacker can help improve the eco-efficiency of your operations while maintaining the highest levels of productivity and safety. With a range of modular battery options and charging solutions, we can work with you to design a solution that will deliver for your business.

## **Eco-efficiency built in.**

Being electrically powered, your reachstacker will produce zero carbon emission at source, making them cleaner and safer to operate. You can cut your carbon emissions even further by using green energy sources where available. An electrically powered reachstacker is only the start of your eco-efficient journey. One that we will be with you every step of the way.

## Productive by nature.

With an electric powered driveline your drivers will notice a big difference with faster and smoother acceleration and more responsive handling while still being able to lift up to 99,000 lbs efficiently and safely. Less time will be spent servicing and maintaining your electrically powered reachstacker as it has less moving and mechanical parts, plus you will be able to keep it running optimally within a broader range of temperatures with Kalmar's Thermal Management System fitted as standard.

## Safety in focus.

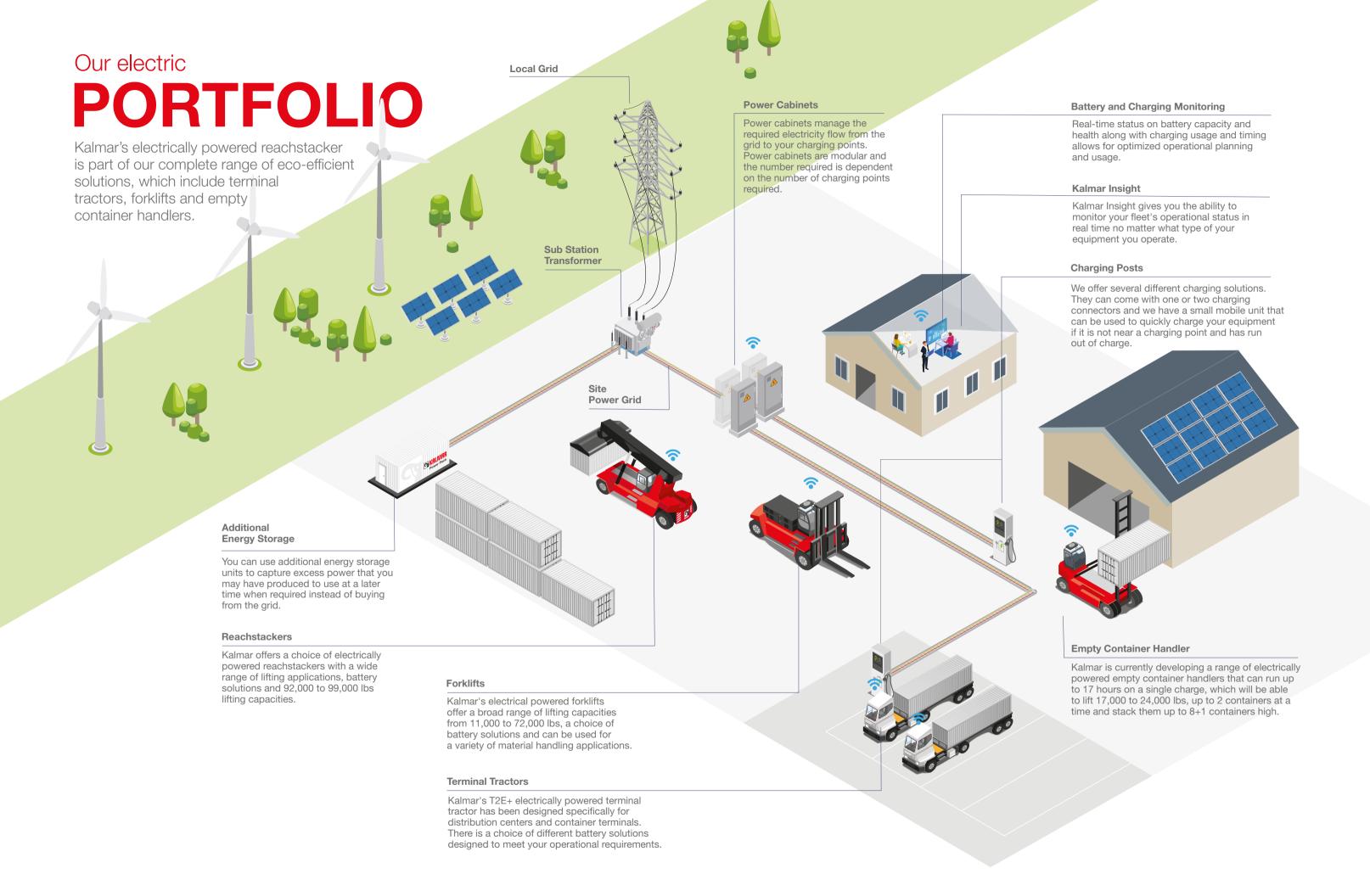
Kalmar's range of electrically powered reachstackers offer highly responsive handling and superior visibility from the cabin, helping to keep your driver safe and in control. Your drivers will also benefit from reduced cabin noise and vibrations as our electrically powered reachstacker's driveline is extremely quiet and smooth. There are also a large range of options available that can further enhance the safety of your equipment and the drivers operating them.

## For complete peace of mind.

All Kalmar Electric Reachstackers come with a 2 year/4000 hour warranty. Charging solutions are covered for 2 years and batteries for up to 5 years\*. Additional warranties up to 10 years for the reachstacker and 5 years for the charger are available for complete peace of mind.



specific kWh used





## Modular by design.

Batteries and chargers are a big part of your overall investment making it critical that you get a solution that is matched to your operational requirements, which is why Kalmar has taken a modular approach to our battery and charging solutions.

There are four different charging solutions with charging capacities from 175-350 kW and four different Lithium-ion batteries to choose from. Our battery solutions all come with a 5 year warranty (or specific kWh used) and have an expected 10-12 year life\*.

Kalmar can help you work out which battery option and charging solution is right for your business based on your current work cycles.



### Managing your power.

Kalmar's Battery Monitoring System continually monitors the voltage, temperature, coolant and current flow of your battery solution to ensure that it operates optimally over its lifetime. This system also controls the charging of the batteries by redirecting recovered energy back into the battery packs making sure you are using the power available as efficiently as possible. Data from the Battery Monitoring System is displayed in Kalmar Insight allowing you to secure optimal battery use to ensure warranty conditions are met and the longest possible lifetime of the battery can be obtained.

# Productive in extreme weather conditions.

Our portfolio of electrically powered reachstackers all come fitted with a Thermal Management System, which allows your equipment to run optimally even in extreme weather temperatures. The system keeps your core battery temperature between 75-85°F for optimal performance even when the temperature outside gets down to -22°F or up to 105°F.

By linking the Thermal Management System to the Climate Control System energy used to heat or cool the operator's cabin will be reduced by 5%. Not only keeping your drivers comfortable, but reducing the overall energy required to run the AC or heating.



#### Extra safe.

With any electrically powered high voltage system you need to be extra safe which is why we have encased and shielded all high voltage lines. Should any connection be interrupted the whole system will automatically shut down keeping your team safe. Knowing how to work with high voltage power sources is extremely important which is why Kalmar has specifically designed a High Voltage training course to enhance the skills of your workers and keep them extra safe.

# **POWERTRAIN**

	Drive axle, manufacturer – type		Kessler D102 - Differential and hub reduction
	Drive motor, manufacturer - type designation		BoschRexroth - EMS1H 13E60
DRIVETRAIN	Drive motor power, rated continuous - max	hp (kW)	244 - 543 (182 - 405)
	Transmission, manufacturer - type		BoschRexroth / eGFZ9275 2-speed
	Load handling motor, manufacturer - type designation		BoschRexroth / EMS1H 20B20
	Load handling motor capacity, rated continuous - max	hp (kW)	147 - 308 (110 - 230)
	Auxillary motor, manufacturer - type designation		BoschRexroth / EMS1H 13B15
	Auxiliary motor capacity, rated continuous - max	hp (kW)	30 - 67 (23 - 50)
	Energy consumption	kWh/h	40 - 68
BATTERY	Battery type		Li-ion
	Battery nominal capacity - options	kWh	245, 326, 407, 587
	System nominal voltage	V	565 - 754
	Charging inlet capacity, max	kW	350
	Charging inlet standard		CCS1, CCS2
	Charging inlet capacity, max		350

<sup>\*</sup> First life, meaning until 80% capacity is left in the battery.

# OPTIONS



Kalmar has a range of options that make operating your equipment even safer:



Fire Suppression System. To protect your operator and machine from fire you can fit a Fire Suppression System\* to your machine. The system utilizes multiple spray nozzles that release a high pressure fire suppression agent where the fire has been detected from a re-chargeable tank. This can be activated manually or automatically through an in-cabin temperature sensor.



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



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



**Additional lighting.** Extra lighting, particularly if you operate your machine at night, can bring greater operational visibility and safety for personnel working on the site. You can choose additional LED working lamps on specific positions.



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



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



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



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



Kalmar has a range of solutions that will help make your equipment more eco-efficient and sustainable:



Tire Pressure Monitoring System. Helps to reduce wear and tear on tires which results in reduced fuel consumption. Bluetooth sensors keep the driver continually advised of the condition of the tires. Active care of your tires can result in a 10-40% increase in tire life.



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



#### **Drive Speed Limitation System.**

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



Cannot suppress a battery fire. \* This option will be available soon.
\*\* Weight scale is not legal-for-trade in USA/CAN.

# DESIGNED

Kalmar Electric Reachstackers 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.

The Kalmar Electric Reachstacker, with its electrically powered driveline, is quieter inside and outside the cabin, vibrates less than traditional reachstackers and produces no carbon emissions, further enhancing driver comfort.



## Easy to operate.

Our electrically powered reachstacker comes with Kalmar's ergonomic Ego joystick, an electronically adjustable work console and side tilting steering wheel. All designed to make operating your reachstacker easier and more efficient.



With a choice of comfortable driver seats, an ergonomic 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.

### Extra smart.

Our intuitive user interface combines visibility, sound and touch to create a perfectly balanced operating environment with an intelligent color display at its heart. Advanced diagnostics, battery status overview and smart settings allow improved operational control and optimal opportunity charging planning.











## Financing options.

You may choose to buy your new reachstacker outright or consider leasing or renting your equipment. Your local Kalmar Authorized Dealer offers a range of leasing and renting options that can give you the financial predictability you need, and the option to upgrade your equipment after a fixed period. By renting or leasing your equipment you can focus on your core operations, while your local dealer could provide all your service and maintenance needs required for your equipment.

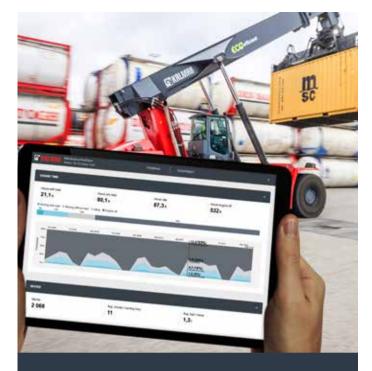
You just need to choose which leasing package and level of service and maintenance support is right for your business. No matter what your service and support needs are, make sure that you speak to your local Kalmar Authorized Dealer first.



## When the right part matters.

When something needs to be replaced and you need a spare part that meets your exact needs – urgently – you can't do better than a Kalmar Genuine Part. Only Kalmar Genuine Parts are guaranteed to fit perfectly and keep your equipment running optimally.

Kalmar together with your local dealer carries a large range of essential spare parts and service kits at all times, all other parts can be ordered by your dealer through one of our global parts warehouses which are located around the world, ensuring that we can get the right part quickly and efficiently - minimizing your equipment downtime and maximizing productivity.



## Kalmar Insight. Turning data into actionable mpactful insights.

Kalmar Insight\* is a performance management tool for cargo handling, which gives you an easy-to-use overview of your fleet operations, by aggregating data from multiple sources, including equipment built by other manufacturers. This information is then delivered through an accessible user interface that is available on cell phones, tablets or on office-based screens.

You can review your entire fleet's performance, schedule maintenance activities, and review operational data for each piece of equipment. All enabling you to act on real-time information that will help improve your overall operations immediately. Kalmar Insight comes fitted and ready to be activated in all new Kalmar equipment and can be retrofitted into existing Kalmar equipment or those built by other manufacturers.

\*Installation costs and/or an annual subscription fee may apply – speak to your local dealer

# **STANDARD**

Kalmar ERG420S-450S (S = Container - Top Lift) Kalmar ERG450C-450C (C = Intermodal - Combi Lift)

#### Norms, Standards and Regulations

- Machinery Directive 2006/42/EC
- Safety Variable Reach Trucks EN 1459+A3
- Safety Low & High Lift Trucks ANSI/ITSDF B56.1
- Low Voltage Directive 2014/35/EU
- ANSI/ITSDF-marking for North America trucks Electrical/electronic requirements EN1175
- EMC Directive 2014/30/EU
- Powered industrial Trucks AS2359
- Supply of Machinery (Safety) Regulations 2008

#### Chassis

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

- Steps with anti-slip protection
- Rear view mirrors (2x) on front fenders
- Strong and protective fenders (front & rear)

#### Steer Axle (Rear)

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

#### **Drive Axle (Front)**

- Kessler planetary axle with differential drive
- Wide axle for high side stability (163")
- Oil-cooled Wet Disc Brakes (WDB)
- High pressure filter (10 mµ) for the brakes

#### Wheels (Tires & Rims)

• Strong wheels (tires and rims) in 18.00x25"

#### **Powertrain**

- BoschRexroth traction motor 244hp (182 kW) cont./543 hp (405 kW)
- Load handling motor 147 hp (110 kW) cont./308 hp (230 kW) max.
- Auxiliary motor 30 hp (23kW)
- cont./67 hp (50 kW) max.
- BoschRexroth 2-speed transmission
- System voltage 565-754V
- Regenerative braking

#### **Load-Sensing Hydraulics**

- Load-sensing variable piston pumps
- Pumps for boom, spreader, brakes & steering
- Vane pumps for brake & oil cooling (2x)
- Return filters for the work hydraulics (2x/10 mµ)
- Hydraulic long-life fine filter with by-pass (5 mµ)
- Servo filter for the work hydraulics (10 mu)
- Pressure filter for the brakes (10 mu)
- Regeneration high-speed lifting & extension
- Boom end-damping (in-out/up-down/20-40')
- Hydraulic tank (195 gal), cooling, breather filter & ORFS-couplings

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

#### **Attachment**

- Top Lift (S), 99,000 lbs, 20'-40', MPS, TWL. 4 lift hooks, sideshift and rotation
- Combi Lift (C), 99,000 lbs, 20'-30'-40', HPS, TWL, 4 lift leas, 4 hooks, end tilt+lock, sideshift & rotation
- S-C = 4 floating twistlocks, LED indication lamps and 2 LED work lamps
- S-C = Safety locking, alignment pins (4x) and sensors (4x)
- S-C = Rotation +195/-105 deg (2 motors and 2 brakes)
- S-C = Lift hooks for slings on end beams (4x)
- S = Mechanical Pile Slope MPS ±5 deg
- C = Hydraulic Pile Slope HPS ±5 deg • Large sideshift (S-C =  $\pm 31.5$ ")

#### **Electrical System 24V**

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

#### Cabin (EGO)

#### Structure

- Spacious, modern cabin with good ergonomics Large windows, good visibility, in all directions
- Manual moveable cabin (stroke 93")
- Handrail handle (left side)
- Sliding window on both sides
- Doors with air damper and key lock (left & right)
- Tinted laminated windows

#### Comfort

- Kalmar comfort seat, mechanical spring,
- Adjustable armrest (right side) & 2-point safety
- Inside rear view mirror (right side)
- Interior lights
- Fully adjustable steering wheel with tilt function
- Fully adjustable color display
- Electric adjustable operational console with joystick, operational buttons & armrest (right side)
- Power steering wheel with steer knob
- Electric air pressure horn
- LED background light for buttons & switches Cabin heater via battery thermal management

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

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

#### Information Systems

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

#### **ECO Drive Modes**

- Power mode
- Normal mode
- Eco mode
- Operator menu: System voltage
- Travelling speed (km/h or mph)
- Hydraulic oil temperature Clock and date
- Load info (lbs) & load center info (inch)
- Boom extension & Boom angle Operating time (hours)
- Service time indicator (hours)
- Boom angle and Boom extension
- Electronic weight scale functions • Status of Heating, Ventilation
- and AC system Service indicator
- Container counter with reset function
- Trip computer / statistics

#### Various warning lights & signals:

- Charging battery
- Low brake pressure Fault indicator
- Safety system disconnected
- · Low coolant level battery
- Low coolant level electrical components High coolant temp battery
- High coolant temp electric components
- Low power battery volt level Low/high battery cell temp
- Low/high battery cell volt level/unhalanced power hattery
  - Hydraulic oil temperature

#### Indicator lamps:

- Direction indication
- Parking brake

#### Fleet Management

• Equipped with telemetric hardware for Kalmar Insight

- Cabin: Iron-Grey RAL 7011
- Chassis, tanks & fenders: Red RAL 3000 • Boom, attachment & axles; Black RAL 7021
- Rims: Iron-Grey RAL 7011

### **Documentation and Decals**

- Load chart diagram inside cabin
- Machine data sign on chassis with load chart • Warning, tire pressure & oil pressure labels
- Information & joystick labels
- Fuse diagram Instruction manual
- Maintenance manual Spare parts catalog

- Base machine (excl. battery) 24 months / 4000 hours
- Battery warranty 5 years or defined kWh

# **OPTIONS**

Kalmar ERG420S-450S (S = Container - Top Lift) Kalmar ERG450C-450C (C = Intermodal - Combi Lift)

- ERG ranges in Toplift (S), Intermodal (C)
- Wheelbases; 236"-256" (6.0-6.5m)

#### Body

- Anti slip protection on fenders and tanks
- Mud flaps (front or/and rear)
- External rear view mirrors (2x)

## • Storage box

Steer Axle (Rear) Steer cylinder spacer (less tire wear)

#### Wheels (Tires & Rims)

Spare wheels, tires and rims for 18,00x25"

### **Powertrain**

- 245 kWh battery 17.5 Ah (nominal capacity)
- 326 kWh battery 17.5 Ah (nominal capacity) 407 kWh battery 17.5 Ah (nominal capacity)
- 587 kWh battery 21 Ah (nominal capacity) Various programmable speed limitations

## **Load-Sensing Hydraulics**

• High pressure filter

- Lifting boom
- Duplex 2-stage S5 (5/5, H4 = 595"-599")
- Duplex 2-stage S6 (6/5, H4 = 634"-638") • Duplex 2-stage S6H (6/6, H4 = 697"-701")
- Duplex 2-stage C5 (5/5, H4 = 587"-591") Lifting boom outreach cylinder stroke. S5=276", S6=303", and S6H=335"

- Attachment • Tilt function F/R ±5 deg, tilt lock, speed 3 mph
- Hydraulic Pile Slope, HPS ±5 deg (side tilt), with tilt lock and speed 3mph
- Rotation stop at ±25 deg (with override switch) Automatic extension 20'-40' with 30' stop • 2 extra lift eyes, center of spreader
- (2 x 49.500 lbs) • 4 extra lift eyes, middle of spreader
- (4 x 24.500 lbs)
- Soft landing with ultrasonic sensor (less noise)
- Twistlock rubber damper (3.9" longer) Extended twistlocks 11.8" (9.8" longer) Cylinder extension 20'-40' on standard/Tilt/HPS
- WTP Top Lift (Wide Twistlock Position). HPS ±5 deg,
- 30'-35' stop, TWL = 89"-96" • Coil ram. 77.000 lbs. coil ID/OD = 20"/118". slave attachment for 20ft
- Lift hook (1x) + lift eyes (4x), max 110,000 lbs, slave attachment for 20ft • Various industrial lift units, mounted in slave

# attachments for 20ft

- **Electrical System 24V** • Radio with CD / MP3 / Bluetooth / DAB
- Extra sockets 2x24V+2x12V (in door columns) • Extra sockets 2x24V+2x5V USB (door columns)
- Height limitation system for lifting boom Load center limitation for lifting boom • Speed limitation, programmable (default 12 mph)
- Speed warning at 9.3 mph • Speed limitation outside transport mode

Electric air pressure horn

 Power battery volt level Coolant temperature power battery

- Coolant temperature electric components
- Adjustable acceleration/deceleration
- Extra working light, LED 2x, on front fenders
- Extra working light, LED 4x, on front fenders
- Extra working light, LED 2x, on spreader
- Extra working light, LED 2x, middle of boom • Extra working light, LED 4x, front of boom
- Extra reverse light, LED 2x, on rear light bracket
- Extra rotating beacon, LED, in boom nose front • Extra rotating beacon, LED, right side on
- counterweight • Extra rotating beacon, LED, left side on
- counterweight • Strobe light replacing STD beacon on boom
- Color display TFT-7" (17 cm), inside cabin choose type of camera(s) below:
- Reverse camera, 1x, rear on counterweight
- Front chassis camera, 1x, above drive axle - Front of outer boom, 1x, facing forward - Below inner boom. 1x, facing forward
- Twistlock cameras, 2x, in spreader end beams - Combi legs camera, 2x, facing down on trailer
- Reverse warning system, TFT-7" display, reverse camera, 4 rear sensors • Forward warning system, TFT-7" display, reverse
- camera, 4 rear sensors • Electric heated mirrors, front fender/standard nosition
- Electric heated and adjustable mirrors, on front fenders (standard position) • Tire pressure monitoring system (Bluetooth)
- Alcolock Draeger in cabin
- Structure • Hydraulic sliding cabin (stroke 93"),
- anti-collision function, avoid load hitting cabin Hydraulic elevating cab (stroke 90") position forward on right side
- Speed limitation depending on cabin position • Extended rear cabin window 3.9"
- Comfort • Seat with air-cushion, heating & 3-point belt

3-point belt

(left side)

- Seat cover in vinvl • Head rest for the seat
- Horizontal dampening/suspension of seat • Grammer Actimo XL, air-cushion, heat,

Armrest with adjustment (left side)

• Isringhausen 6830KA/870, air-cushion, heat, 3-point belt Extra trainer seat with 2-point safety belt

• Bracket for terminal and monitor (right side)

• Write pad, A4 paper box & reading lamp (right side)

#### • Extra rear-view mirror inside cabin Controls

- Lever steering with switch for forward/reverse
- EGO joystick (G-generation) Override key switch
- Sun visor roof window (of reflecting film) Microfilter in additional to standard filter

Mini-wheel steering with F-N-R switch

AC/ECC switched off when door is open

Sun visor front-roof-rear windows (of black net)

## **Additional Equipment**

- Enhanced Safety Package including:
- Speed limitation outside transport mode
- Reverse warning system including sensors, camera and displays in cab
- Tire pressure monitoring system - Adjustable speed limiter (default 9.3 mph)
- Seat belt interlock (machine will not go in gear
- if seat belt is off) Semi-automatic fire suppression system

Central greasing (base truck + steering)

Tool kit

Central greasing (entire spreader)

## Information Systems

- VDI Vehicle Data Interface
- Fleet Management Kalmar Insight license (only certified countries)
- Kalmar Insight Driver Monitor (RFID reader + 10 unique driver tags)

## Kalmar Insight extra driver tags (10 tags) Kalmar Load Measurement System

system including time, date and load\*

Other BAL color than standard, chassis

Semi-automatic weight checking and recording

- Special and multiple colors, chassis Other color than standard, striping foil
- Reinforced anti-corrosion protection
- **Documentation and Decals**  Extra set of documentation Workshop manuals
- Load chart lbs/inch in cab & sign "no riders" Documentation on memory stick
- Training Various training packages, for drivers, service, maintenance, software etc • Contact Kalmar Training Center for more

### information and planning

Warranty Additional warranty packages available

- please contact Kalmar for more information

# **SPECIFICATIONS**

				ERG420-60S5	ERG450-60S5
	Type of handling			Containe	er Handling
	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3 - Q4	(klbs)	92-55-26	99-59-28
	Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3 - Q4	(klbs)	-	_
	Load center, from front face of tires, row 1-2-3-4	L4 - L5 - L6 - L7	(in)	77-150-248	77-150-248
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		. ,	5/5-5/4-4/3	5/5-5/4-4/3
	Lost load center, to front face of tires	X	(in)	33	33
	Wheelbase	L3	(in)	236	236
			( )		
	Service weight, standard truck		(lbs)	TBD	TBD
	Axle load, front at load center L4, unloaded - loaded	without support jacks	(lbs)	TBD	TBD
	Axle load, front at load center L5, unloaded - loaded	without support jacks	(lbs)	TBD	TBD
	Axle load, rear at load center L4, unloaded - loaded	without support jacks	(lbs)	TBD	TBD
	Axle load, rear at load center L5, unloaded - loaded		(lbs)	TBD	TBD
	Axie loau, real at loau center E3, unloaueu - loaueu		(105)	טטו	160
	Tirge dimension DIV rating star rating (1)			18 v 25" DD40 E4	18 v 25" DD40 E4
	Tire pressure (front rear)		(no:)	18 x 25", PR40, E4	18 x 25", PR40, E4
	Tire pressure (front - rear)	0.1 00	(psi)	145-145	145-145
	Track width (front - rear)	S1 - S2	(in)	119-102	119-102
			( )	0.00	
	Boom angle, min - max		(deg)	0-60	0-60
	Boom height, min - max	H3 - H5	(in)	181-717	181-717
	Chassis height - top of boom fixation, max	H2	(in)	155	155
	Lift height, min-max in twistlocks, row <sup>1</sup>	H4	(in)	595	595
	Boom reach stroke		(in)	276	276
	Truck height - seat height	H6 - H8	(in)	181-101	181-101
	Overall truck length, with boom	L	(in)	441	441
	Truck width over drive axle	В	(in)	164	164
	Spreader sideshift	V1	(in)	+/-31.5 (63.0)	+/-31.5 (63.0)
	Spreader rotation		(deg)	+195/-105	+195/-105
	Ground clearance		(in)	10	10
	Aisle width with 20'-40' container	A1 - A2	(in)	441-536	441-536
	Turning radius, outer with 20'-40' container	R1 - R3	(in)	319-371	319-371
			, ,		
	Max travel speed, fwd unloaded - 70% rated load /		(mph)	15-12 / 15-12	15-12 / 15-12
	rev unloaded - 70% rated load, max				
	Lifting speed, unloaded - 70% of rated load		(fps)	1.38-0.82	1.38-0.82
	Lowering speed, unloaded - rated load		(fps)	1.18-1.18	1.18-1.18
POWERTRAIN	Drawbar pull / towing capacity (peak - continuous)		(lbf)	56200-22480	56200-22480
ı					
ОТНЕВ	Tank volumes of working oil & brake oil		(gal)	195 (158 + 37)	195 (158 + 37)
	Working pressure boom, max		(psi)	3335	3335
	Noise level LpAZ (EN12053), inside cabin <sup>2</sup>		(dB(A))	TI	BD
	Noise level LWAZ (EN12053), outside cabin <sup>2</sup>	el LWAZ (EN12053), outside cabin <sup>2</sup> (dB(A)) TBD			

ERG450-60C5

99-55-22

77-150-248

5/5-5/4-4/3

33

236

TBD

TBD

TBD

TBD

TBD

145-145

119-102

0-60

181-717

155

587

276

181-101

441

164

+/-31.5 (63.0)

+195/-105

10

441-536

319-371

15-12 / 15-12

1.38-0.82

1.18-1.18

56200-22480

195 (158 + 37)

3335

18 x 25", PR40, E4 18 x 25", PR40, E4

ERG450-65C5

99-61-28

77-150-248

5/5-5/4-4/3

33

256

TBD

TBD

TBD

TBD

TBD

145-145

119-102

0-60

181-717

155

587

276

181-101

461

164

+/-31.5 (63.0)

+195/-105

10

457-536

335-371

15-12 / 15-12

1.38-0.82

1.18-1.18

56200-22480

195 (158 + 37)

3335

TBD TBD

**Intermodal Handling** 

 <sup>4 + 2</sup> pneumatic / diagonal tires
 Depending on Drive Mode setting



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