

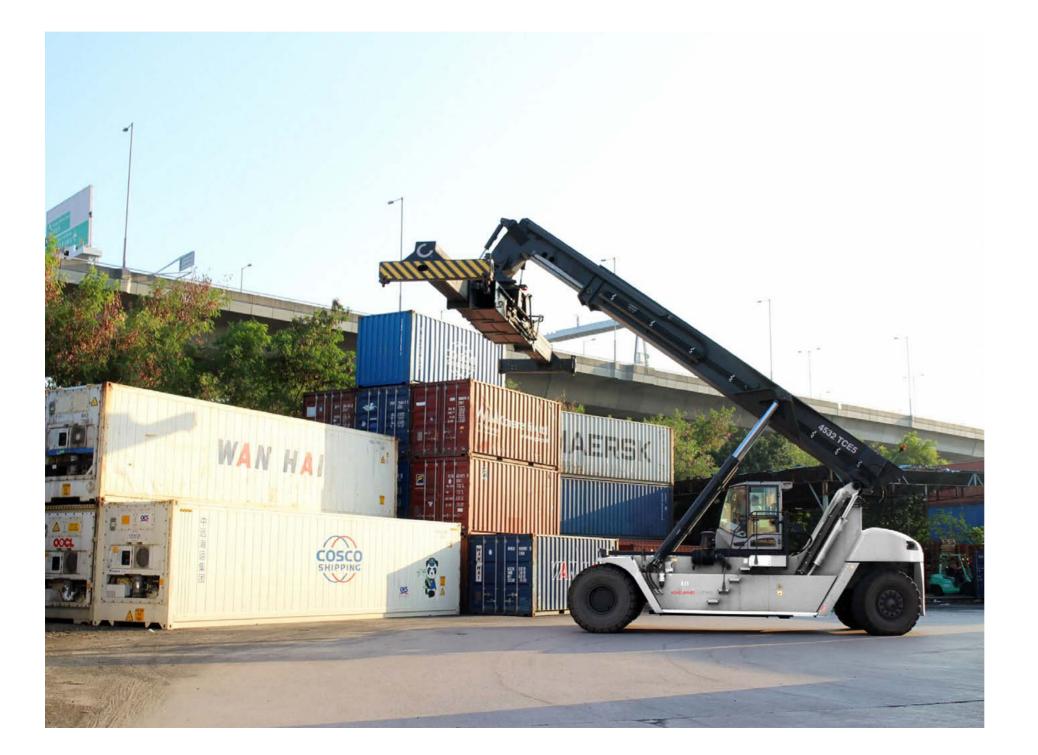
4532 TCE5

Konecranes Liftace reach stackers

KONECRANES[®] | LIFTACE

KONECRANES | LIFTACE

The environments, climate challenges, drivers' needs, lifting loads and heights of every lift truck driver are always different and special. By listening and observing carefully to learn about your world, it's possible to design and deliver the most ideal lift truck for your operation.





Here's a secret we know and understand: we all like to talk about ourselves, but the world that matters most to you is your world, not ours. We at Konecranes Lift Trucks listen to, learn from, design for, deliver to and support you to help you succeed in the unique world where you work.

For efficient handling of containers and cargo

Konecranes reach stackers have often been the first equipment on site when new terminals have been opened in all parts of the world and have been setting the benchmark ever since.

At port, railway or intermodal terminals, in container stackyards or any other logistics



Built for your world

hub, Konecranes Liftace reach stackers are renowned for their well proven design, first class components and excellent workmanship. This combination has given them the reputation of being highly efficient and reliable workhorses, easy to maintain and service.

Konecranes Liftace reach stackers meet the modern challenges of professional container or heavy general cargo handling with an impressive loading capacity of 45 tons, and high working speeds with simple and safe operation.

KONECRANES[®] | LIFTACE

WELDED BOX-TYPE LIFT BOOM

A strong box-type lift boom which lowers stresses and extended design lift of the lift boom. The four-plate box section gives excellent bending resistance and torsional stiffness, resulting in a precise and predictive driving behavior.

ELECTRONIC MACHINE CONTROL, EMC MASTER

You get full monitoring of all vital components and functions on a 7" touch screen. CanBus technology increases engine and transmission reliability as well as hydraulic and joystick control.

OUTSTANDING ERGONOMICS

With driver-focused design the OPTIMA cabin is the most spacious cabin on the market. Everything is within easy reach.

CURVED GLASS GIVES REMARKABLE VISIBILITY

Drivers have an exceptional range of vision through very large, lowered windows with no corner posts, a thin but very strong roof crossmember, and curved nanels

SMART LOAD-SENSING HYDRAULICS

SMART AND CONNECTED

TRUCONNECT Remote Monitoring services enables

will provide means to improve safety, keep track of

operations and plan maintenance.

tracking of the real usage of the truck. The connection

MODERN AND DURABLE LIFTING SPREADER

Top-lift for 20/40 ft containers, +105/-195 degrees

cargo. Mechanical pile slope (MPS ±2 deg).

rotation, +/-800 mm total sideshift, 4 lift eyes for sling

Specially designed hydraulics sense the weight of the load and adapt lifting power accordingly. The truck provides maximum power only when really needed, so it consumes less fuel while reducing emissions and noise.

Konecranes Liftace 4532 TCE5 reach stacker at a glance

The strength, performance and reliability of every Konecranes lift truck are based on our proven technology.

Quality you can trust

All our lift trucks are built for your world, the Konecranes Liftace 4532 TCE5 is no exception. Konecranes high quality core components, such as strong chassis, proven major components, and a durable spreader, enable a steady performance and high uptime.

The Konecranes Liftace 4532 TCE5 reach stackers' working speeds enable efficient handling rates increasing productiveness of your operations. The low fuel consumption and predictable maintenance costs make the machine economical to operate and maintain. Reliable monitoring and excellent visibility of Konecranes Liftace 4532 TCE5 reach stackers increase the driverfriendliness and safety of your drivers and other nearby personnel.

EXCELLENT STABILITY

Wide, strong drive axle and long wheelbase means stability and safe lifting of heavy loads.

POWERFUL ENGINE

Certified low-emission engine provides extra high torque at low revs for reduced fuel consumption and low noise levels.



BENEFITS

- Reliable lift truck with full performance
- Optima cabin for outstanding comfort and superior visibility
- Work Zone based on GPS technology to define virtual fences around real world areas. Improves safety by setting speed limits and height limitations within the zone.
- Smart load-sensing hydraulics means less fuel consumption, reduced noise and emissions
- Safe lifting and driving with heavy loads thanks to the chassis, strong boxed lifting boom and better visibility

HEAVY-DUTY BOX-TYPE CHASSIS

The strongest on the market. The foundation of long-lasting high performance.

KONECRANES[®] LIFTACE



The lifetime advantage

Owning the perfect lift truck is not only about the machine itself. It's about maintaining high performance as the years go by, with services such as quality spare parts, preventive maintenance, support when you need it, or tailored training for in-house mechanics.

YOUR WORLD

"Considering the great support we always get, along with the high quality and performance of our Konecranes equipment, they definitely are at the top of the list when making the final purchase decision for our next expansion."

William Elliott, Vice President Operations, **Port of Barranquilla**

Safety-first culture

When working with material handling and heavy loads, you want to minimize safety risks to help maintain the well-being of your employees.

We think that the pursuit of safety never stops. It's not about built-in safety features alone - it's about preventive maintenance, training and building a safety-first working culture. Konecranes is often the first to introduce new technology that improves safety.

Safety is in everything we do, all the way from R&D to all the customization possibillities and technological innovations we offer. Depending on your particular operations, we can meet your specific needs with a wide variety of preventive solutions to maximize the safety of your personnel.

Expert support when you need it

We have a unique service concept in the lift truck industry. It provides you with a seamless service experience, starting with the condition of the reach stacker, and producing all needed parts and work orders. Being part of a global company, Konecranes Liftace benefits of a huge network of service and distribution partners around the world. Our expert support helps you to maintain extended use cycles and give your equipment a longer lifetime. We also offer several related services, such as upgrades, safety and maintenance kits, e-learning platforms, recommended parts lists and more.

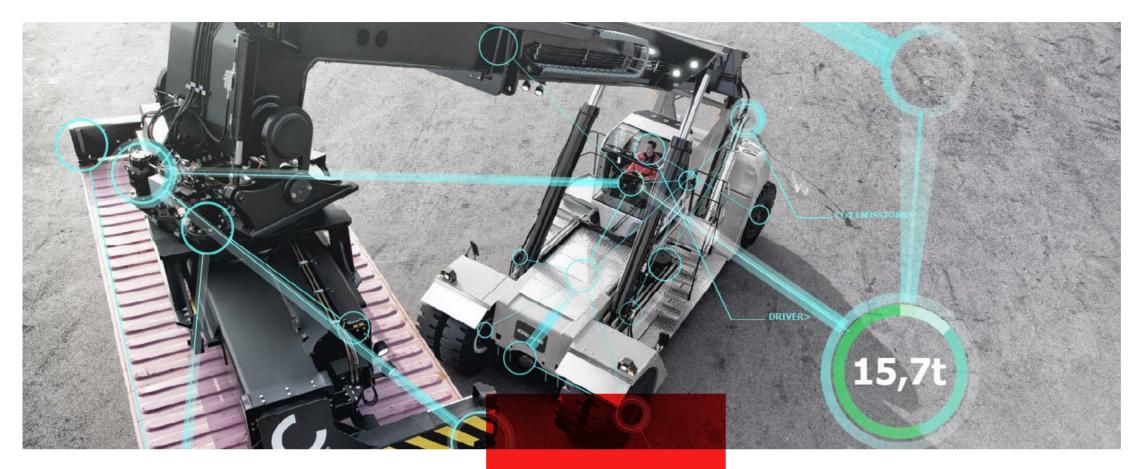


YOUR WORLD

"Even though our company is located in the far south of Thailand, we have no issues with technical support such as spare parts, on-site technicians and technical advice. Konecranes and Sri Trang Logistics work together to ensure the highest uptime for our machines and our satisfaction."

Apichart Parnitchkul, CEO Sri Trang Logistics, Thailand

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Smart Connected Lift Trucks

Konecranes Smart Connected Lift Trucks is a range of remote service applications that track the condition and usage of your lift trucks in real time, allowing you to use insights from this data to optimize the productivity of your operation. For example, you can better forecast and schedule maintenance, discover and improve weaknesses in safety and efficiency, or enhance driver performance by identifying training needs for more economical and ecological driving.

Listening to your lift truck

With TRUCONNECT Remote Monitoring you don't have to guess how your lift trucks are doing. Your lift truck collects usage data through sensors, stores it in a condition monitoring unit, and transmits the information to the Konecranes Remote Data Center, where it is compiled and made available to you on our customer portal.



BENEFITS

- Gives you a clear view of how your lift trucks are being used
- Tells you when your lift trucks have been in use, idling or off duty
- Helps you identify where operator training could improve safety and productivity
- Around-the-clock access to data allows a timely response to safety issues
- Gives you transparency of lift truck's maintenance operations



Customer portal

TRUCONNECT usage data is viewable on our cloud-based customer portal yourKONECRANES.com. Usage data, maintenance data and asset details are linked, giving a transparent view of events and activities over any selected time interval. Aggregated data can quickly be viewed, analyzed and shared. To take a closer look at the information regarding your fleet, you can also export PDF and Excel reports from the system. Insights can be produced by observing anomalies, patterns and trends, helping you to make decisions based on facts.

TRUCONNECT data available on yourKONECRANES.com 24/7

Information is organized into easy-to-read graphs and charts in a single location, showing TRUCONNECT operating statistics and alerts. Simple, yet informative charts and tables give you a clear view of your entire fleet in a single glance.

To avoid unnecessary downtimes, you can make customizable alert messages and notifications of events, such as overloads and overheating which can be sent directly to the right person by SMS or email. The portal offers data archiving and retrieval options, including document uploads and electronic reports suitable for printing.

WHAT DO YOU NEED TO LIFT?

We have the attachments

Our Konecranes Liftace reach stacker attachments includes solutions for lifting containers as well as material requiring a hook. Contact your sales representative to discuss your lifting requirements.

4532 TCE:

VECRAN



4532 TCE5

ELME 817 Innovation

Telescopic spreader for laden ISO containers with capacity up to 45 tons. Strong parallel double beam spreader design, floating twistlock (± 10 mm) with hydraulic operation and mechanical safety locking.

- Hydraulic extension with 2 cylinders (20–40 ft)
 Sideshift ±800 mm with 2 hydraulic cylinders
 Full rotation –105/+195 deg. with 1 hydraulic motor (turning) and 2 brakes (holding)
- Spreader side tilt with stroke of $\pm 2 \text{ deg}$ (MPS = mechanical pile slope) 4 lift eyes included for slings (45 tons).

ELME 817-HPS with a stroke of $\pm 6 \text{ deg}$ (HPS = hydraulic pile slope with 4 cylinders). The spreader frame and the end beams are of strong heavy-duty design. Weight of spreader: 7,7 tons ca. without extra equipment. This model is available also with overheight folding legs (ELME 817-MPS/OFL) for open-top containers and flat racks (extra high cargo). The foldable extension legs are 1600 or 2100 mm long and activated by 4 cylinders. Weight appr. 10.3-11.3 tons.





Free slewing hook

Konecranes[®] Liftace free slewing hook for any pick and carry operation.

- Capacities up to 60 tons.
- 360° continue operation - Ramshorn hook

KONECRANES[®] | LIFTACE

Konecranes is a world-leading group of Lifting Businesses[™], serving a broad range of customers, including manufacturing and process industries, shipyards, ports and terminals. Konecranes provides productivity enhancing lifting solutions as well as services for lifting equipment of all makes. In 2019, Group sales totaled EUR 3.33 billion. Including MHE-Demag, the Group has around 18,000 employees in 50 countries. Konecranes shares are listed on the Nasdaq Helsinki (symbol: KCR).

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READ MORE STORIES ABOUT OUR LIFT TRUCKS IN YOUR WORLD

Customer stories kclifttrucks.com/customer-stories

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Konecranes Liftace 4532 TCE5

High performance reach stacker for every day container handling





Built for your world

Here's a secret we know and understand: we all like to talk about ourselves, but the world that matters most to you is your world, not ours. We at Konecranes Lift Trucks listen to, learn from, design for, deliver to and support you to help you succeed in that unique world where you work.

Our reach stackers are built for your world.





The new model: Liftace 4532 TCE5

- Based on the technical platform of SMV TCE5
- With an extended options list including Liftace TFC options
- Combines the features of both models and makes an efficient everyday container handler.





You will benefit from:

- Machines are produced in China and Sweden
- Reach stacker equipped with TRUCONNECT Basic and Premium
- Similarity to the other Konecranes models
- Full CAN-bus system
- Stock units available for quick delivery
- Closer access to global product support
- Same option list available





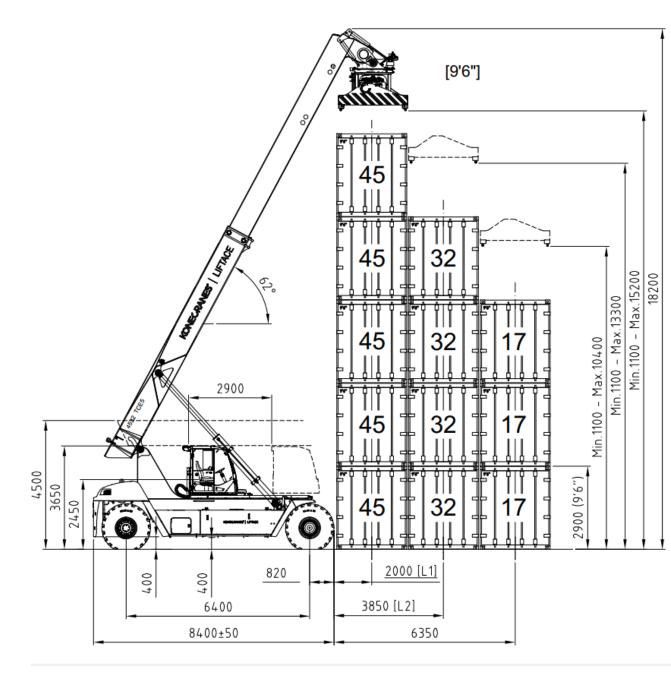


Technical information



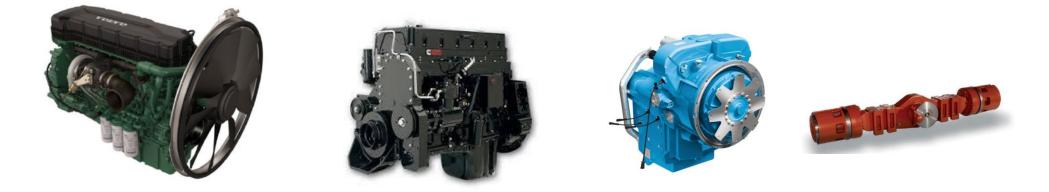
Dimensions

- Capacity 45-32-17
- 32 tonnes second row
- Full capacity on top



Drivelines

Engine	Size / Power	Transmission	Drive Axle
Cummins QSM 11 EU Stage 3a	11 lit / 272 kW	DANA TE-30	Kessler D102
Volvo TAD 1151, EU Stage 3a	11 lit / 265 kW	DANA TE-30	Kessler D102
Volvo TAD 1181, EU Stage 5	11 lit / 265 kW	DANA TE-30	Kessler D102
Volvo TAD 11x1, China Stage 4	11 lit / 265 kW	DANA TE-30	Kessler D102



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Driver-friendliness

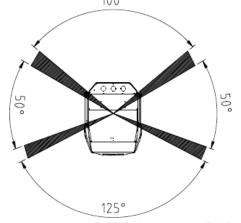
People are your most valuable asset. Driver-friendly trucks facilitate the wellbeing and work of the drivers. Cabins that are well-designed for long shifts and demanding conditions lead to relaxed and more effective drivers.



KONECRANES[®] LIFTACE

Cabin design

- Perfect view no bars
- Ergonomically advanced highest comfort
- Significantly lower noise level (based on official data)





OPTIMA Cabin



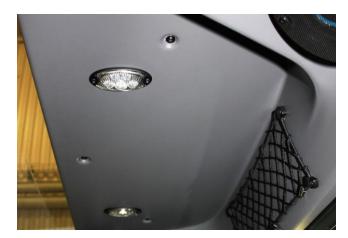
DASHBOARD

- Dashboard on right side
- Different shapes and levels on buttons



WINDOW

• Electric heated rear window



LIGHTS

• LED lights in cabin roof





Climate control

Standard configuration:

- Climate panel
- Radio/USB/Bluetooth in cab roof right side (option)

Options:

• A/C:

19/1/21

- Condenser integrated in roof
- Same position on all models
- Cooling performance: 40°C, 71% relative humidity – 9.9kW (34000 BTU)
- Heating performance: -14°C 12.75kW (44000 BTU)





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Steering column

Adjustable for more comfortable operation

- Height positioning
- Steering wheel angle positioning
- Steering column angle positioning





Driver seat

BeGe mechanical with two point seat belt

- Options:
 - Air cushion seats
 - 3 point seatbelt
 - Training seat





Pedals

Comfortable pedal positioning

- 1. Spacious pedal area design
- 2. One standing accelerator pedal
- 3. Two standing brake pedals
- 4. Declutch





ELME Spreader

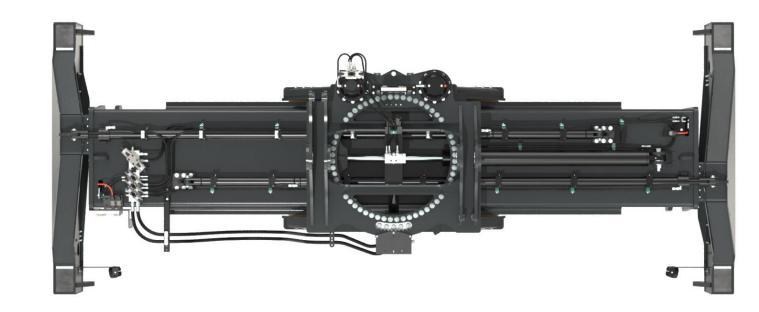
- World leading brand for spreaders with outstanding quality
- ELME Innovation spreader provides:
 - stronger mainframe for further life time improvement
 - easier service with accessible hydraulics





Spreader design

- CAN bus monitored
- Extension beams manoeuvred by hydraulic cylinders
- Extension and side-shift cylinder protected on top of the spreader
- Parker hydraulics



Attachment specifications



ELME 817 Innovation

Telescopic spreader for laden ISO containers with capacity up to 45 tons. Strong parallel double beam spreader design, floating twistlocks (± 10 mm) with hydraulic operation and mechanical safety locking.

- Hydraulic extension with 2 cylinders (20–40 ft)
- Side shift ±800 mm with 2 hydraulic cylinders
- Full rotation -105/+195 deg. with 1 hydraulic motor (turning) and
- 2 brakes (holding)
- Spreader side tilt with stroke of $\pm 2 \text{ deg}$ (MPS = mechanical pile slope)
- 4 lift eyes included for slings (45 tons).

 $\ensuremath{\mathsf{Konecranes}}\xspace{\ensuremath{\mathbb{R}}}$ Liftace free slewing hook for any pick and carry operation.

Free slewing hook

- Capacities up to 60 tons.
- 360° continue operation
- Ramshorn hook





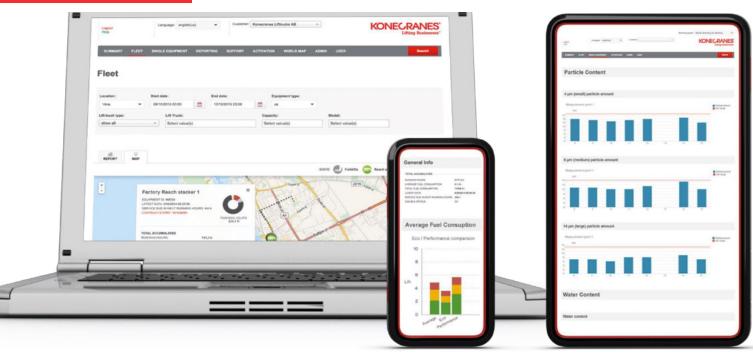
Enhanced performance



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Smart Connected Lift Truck

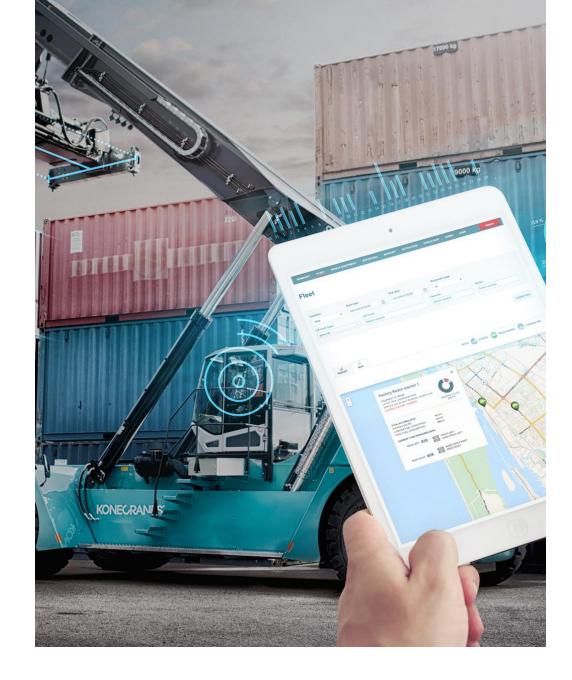
- Konecranes Smart Connected Lift Trucks is a range of remote service applications that track the real usage of your lift trucks in real time.
- Forecast and schedule estimated maintenance
- Discover and improve safety and efficiency weaknesses
- Enhance driver performance by identifying training



TRUCONNECT BASIC & PREMIUM

- Electronic weight scale
- Weighing solutions
- Optimization and monitoring of:
 - Lift truck utilization
 - Productive profitability
 - Safety planning
 - Maintenance planning and prioritization

Find all the information in one unique place: **yourKONECRANES.com** Customer portal



Safety

Innovations like WORK ZONE geofencing and Konecranes weight verification are not important because they are cuttingedge, but because they make your work environment safer. They protect your drivers and ground staff.



Safety options

- Reverse warning & camera systems
- Extra working lights
- Tire Pressure Monitoring
- High visibility seat belt
- Fire suppression systems
 - ...and many more!





fire & rescue systems







Productivity options

- HLL filter for hydraulic oil
- Central greasing
- Two-stage engine air filter Turbo II
- Power Pile slope spreader
- Sliding cab
 - ...and many more!







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Lifetime Advantage

- **Quality products and parts** from upgrades to retrofit for optimal performance during the entire lifecycle
- **Expert knowledge** qualified advice that help growth and expansion of your business
- **Global commitment** support of your world. Whatever you need, wherever you are







NOT JUST LIFTING THINGS, BUT ENTIRE BUSINESSES



KC Liftace TFC 45 KC Liftace 4532 TCE5

Comparison highlights

Note: This comparision concerns the old TFC. R model and new generation TFC are not covered in this material



Capacity availability

KC Liftace TFC 45



Two versions with two different capacities

- TFC 45 H / TFC 45 HC (45/27 t capacity)
- TFC 45 R H / TFC 45 R HC (45/31 t capacity)

KC Liftace 4532 TCE5



One version

• Liftace 4532 TCE5

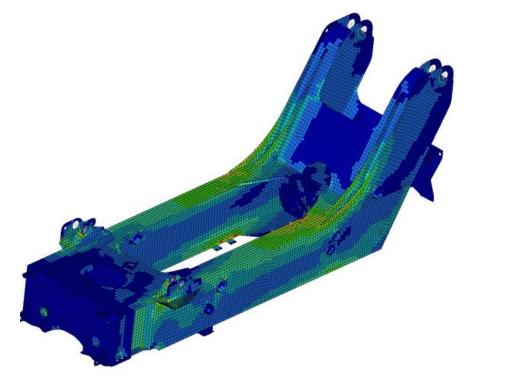


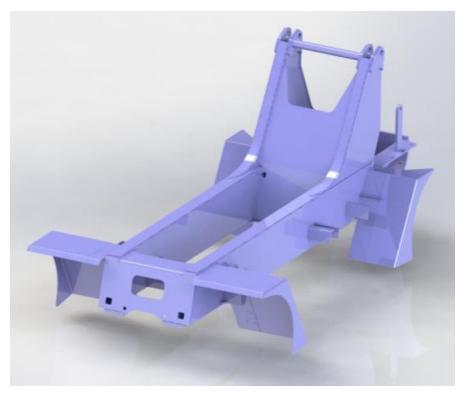
Chassis design

KC Liftace TFC 45

KC Liftace 4532 TCE5

Both Liftace TFC 45 and Liftace 4532 TCE5 uses strong welded box type design chassis with bolted tanks.



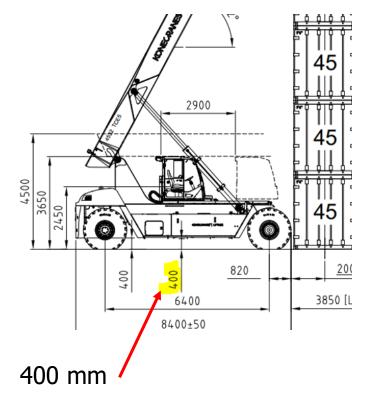


Ground clearance

KC Liftace TFC 45



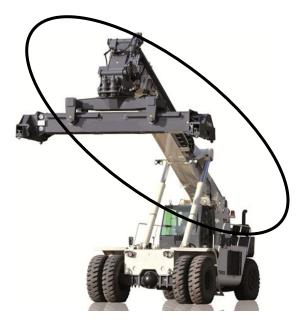
320 mm





Boom design

KC Liftace TFC 45



- Blocking rear view when lifting
- Require maintenance



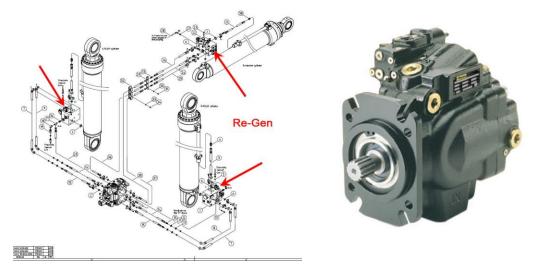
- Well proven boom design
- Low mantenance
- Not blocking rear view when lifting



Re-gen hydraulics

KC Liftace TFC 45

• Liftace TFC 45 had re-generative lifting and boom extention cylinders in HC model only, TFC 45 H non re-genative



- All Liftace 4532 TCE5 are re-generative in lifting and boom extention
- Main pumps 2 x 105 cc (option) Parker P2



Drive train

Main components are the same:

- Engine: Cummins / Volvo
- Transmission: Dana
- Hydraulic pumps: Parker
- Drive axle: Kessler





Drive train

KC Liftace TFC 45



Main differencies:

- Cooling system on the side
- Hydraulic pumps on crank shaft

KC Liftace 4532 TCE5



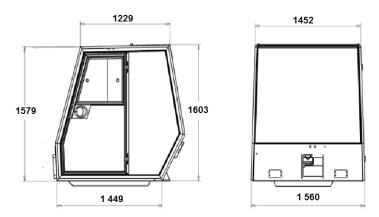
Main differencies:

- Cooling system in engine bay
- Hydraulic pumps on transmission



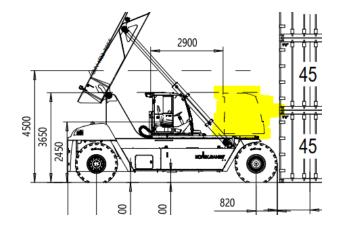
Cabin

KC Liftace TFC 45



- No sliding cab
- Flat windows





- L:1602 x W:1480 x H:1620
- Sliding cab manual std
- Sliding cab hudraulic (option)
- Curved windows
- Same structure as other KC units



Cabin

KC Liftace TFC 45



- Telescopic / Tilt top
- Smaller pedals



- Column Telescopic / Tilt top / Tilt Botton
- Pedal design, larger and more eregonomic



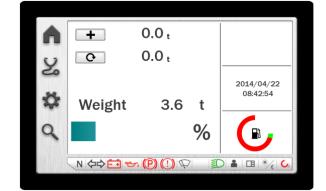
Cabin

KC Liftace TFC 45





- 3,5" display
- Twistlock switch on dash





- 7" display
- All spreader functions on joystick



OPTIMA cabin

Benefits

- Optimal view
- Plenty of space
- Silent







OPTIMA cabin





Perfect view – no bars

(compare to competition, left and right pictures)

- Ergonomically advanced highest comfort
- Significantly lower noise level (based on official data)



OPTIMA cabin





Perfect view – no bars

(compare to competition, left and right pictures)

- Ergonomically advanced highest comfort
- Significantly lower noise level (based on official data)



50°

50°

125°

Spreader

KC Liftace TFC 45



- Konecranes Liftace Top Pick Spreader
 - Chain driven beams
 - Rollers instead of pads



- ELME 817
 - Hydraulic cylinder operated beams
 - Plastic wear pads instead of rollers



Main new features when coming from TFC

- Higher capacity
- Access to TRUCONNECT
- Movable cabin
- Improved boom design
- Longer option list
- Easier spare parts handling with fewer variants
- Full CAN system
- Same basic design as other KC trucks







NOT JUST LIFTING THINGS, BUT ENTIRE BUSINESSES