

Leading through intelligence.

The new **EKX** high-rack stacker

 **JUNGHEINRICH**



**Cold Store
Edition.**

Lift your productivity to a new level.

Thanks to intelligence in every detail.

You must always keep an eye on efficiency and cost-effectiveness in order to satisfy the increasing requirements of the markets and your customers. You need technologies and solutions that support you in safeguarding your company's competitive edge today and in the future.

The new EKX high-rack stacker generation is your ideal solution. We have further developed the number 1 solution for narrow aisle warehouses to equip you for mastering the current and future challenges of warehouse logistics. Benefit from state-of-the-art technology and intelligent solutions for maximum productivity.

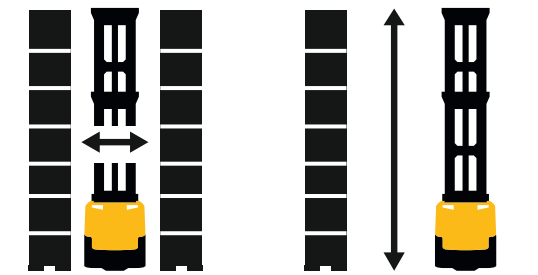


More productivity in less space: the narrow aisle warehouse.

Create more pallet locations in less space and benefit from lower costs per pallet location. If you are re-designing a warehouse or want to use existing warehouse space more efficiently, a narrow aisle warehouse solution will provide you with many benefits.

More storage space.

Get more out of your valuable warehouse space. Narrow aisle warehouses work with less aisle space and greater lift heights. They allow you to increase your usable storage space by up to 30% in comparison to wide aisle solutions.



1.8 m
Aisle width

17.5 m
Lift height

30% more storage space

Higher throughput.

Using narrow aisle stackers with lift heights of 17,500 mm will triple your storage height. In the same space, you can accommodate twice as many pallets as you could with a wide aisle solution.

Systematic solutions.

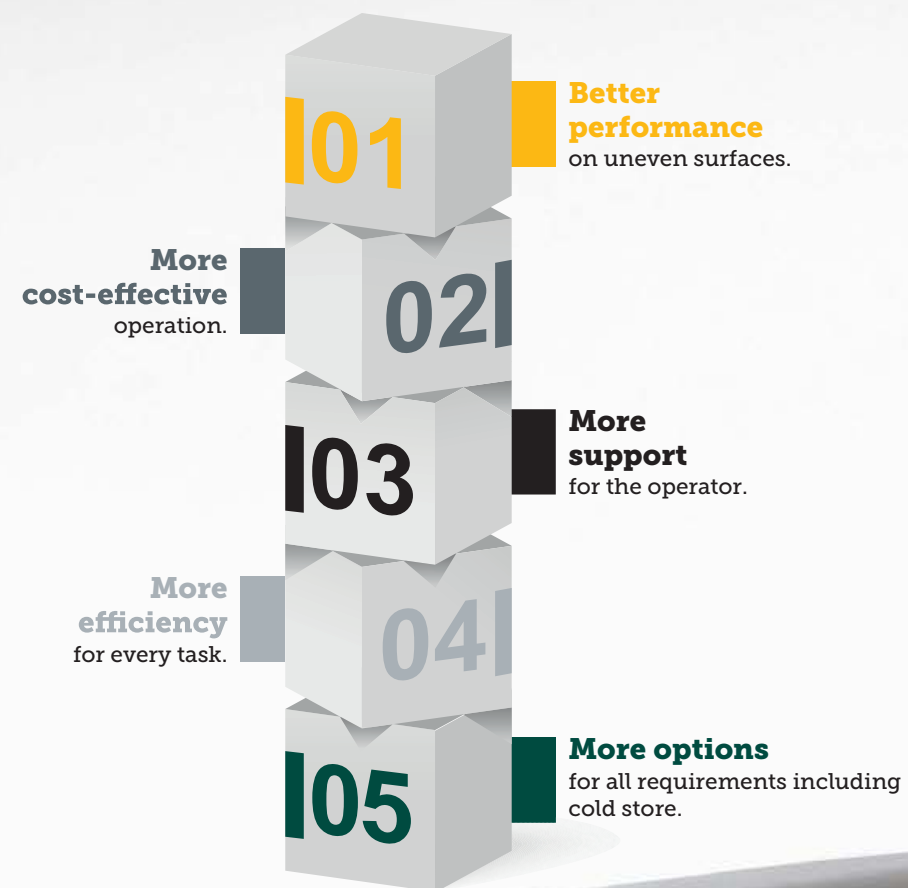
Benefit from our unique narrow aisle know-how. We provide you with comprehensive system solutions – from consulting and planning to the right racking system and the most innovative technology.



The new high-rack stacker generation.

Overview: the EKX series.

Whether it's stacking and unstacking entire pallets or picking single items, with the new EKX series we provide you with a cost-effective solution tailored to your needs. Benefit from state-of-the-art technologies, intelligent solutions and many options that give you a decisive competitive edge.



EKX 410-412

Top efficiency in middle lifting segment.

Max. lift height: 11.5 m
Max. load bearing capacity: 1,000-1,200 kg
Voltage: 48 V



EKX 514-516k

Maximum efficiency up to 17.5 meters.

Max. lift height: 12.5-17.5 m
Max. load bearing capacity: 1,400-1,600 kg
Voltage: 80 V



EKX 516a (AUTOMATED HIGH-RACK STACKER)

More flexibility with the option of manual, semi-automatic and automatic modes.

Max. lift height:** 12.5 m
Max. load bearing capacity: 1,600 kg
Voltage: 80 V

**Higher lift heights upon request



EKX 516 Cold Store

Heated, ergonomic cab for extreme cold environments.

Max. lift height: 12 m
Max. load bearing capacity: 1,300 kg
Voltage: 80 V

Better performance on uneven surfaces.

Thanks to patented vibration damping.

Don't let anything slow you down when it comes to boosting the throughput performance in your warehouse. Not even the condition of its surface. Work on uneven, undulating surfaces more quickly and efficiently, thanks to a world technological first: the anti-vibration system from Jungheinrich for more power in narrow aisles. The first high-rack stacker in the global market with anti-vibration technology, the EKX works efficiently on all surfaces.



Reduction in side sway.

The higher the speed and lift height, the more high-rack stackers sway at great heights. Our innovative anti-vibration system avoids the problem. Uneven surfaces will no longer stop your stacker.

Higher speed for higher throughput performance.

In comparison to high-rack stackers without anti-vibration system, significantly higher speeds are possible on uneven surfaces. Your EKX series 5 will complete more orders than a conventional narrow aisle truck in the same time and travel more quietly. It enables up to 33% faster drive – even on surfaces that do not meet the VDMA guidelines.

The optional power modul "Floor Pro".

The heart of the anti-vibration system technology is a vibration absorber in the turret head that reliably reduces side sway and ensures quiet, safe drive.



Drive
**up to
33%**
faster on
uneven surfaces.

YOUR ADVANTAGES

- **More reliability and better driving characteristics** on uneven surfaces.
- **Smoother ride** thanks to less side sway.
- **Increased speed** for more throughput performance.

More cost-effective operation.

Thanks to top energy efficiency.

Efficiency means achieving more with less effort. This is exactly what the new EKX delivers. Its innovative synchronous reluctance motors and double energy recovery reduce consumption and wear. You save costs and simultaneously extend your operating times. After all, thanks to the best energy footprint in its class, you can work up to two shifts with one battery charge – guaranteed.

More power with reduced consumption.

Our new, maintenance-free synchronous reluctance motors have the highest efficiency in their class. They reduce energy loss and with a lift speed of up to 0.6 m/s, a reach speed of up to 0.5 m/s and a travel speed of up to 12 km/h, provide significantly more power. You can complete more duty cycles in shorter time.

Two shifts with one battery charge.

Thanks to our 2Shifts1Charge guarantee, you can work two shifts with one battery charge. This allows you to save the cost of additional replacement batteries and stations, as well as the time it would take to replace and service the batteries.



Double the energy recovery.

The EKX high-rack stacker not only saves energy, but recovers it as well. Thanks to our patented hydraulic valve technology, during both braking and lowering. Your advantages: Optimized energy management and reduced component wear.

Higher load capacity.

Intelligent lightweight construction and high-tensile steel also contribute to its outstanding energy efficiency, boosting the load capacity by 100 kilograms compared to the previous model.

100%

LONGER WORKING WITHOUT A BREAK.



With 2Shifts1Charge your high-rack stacker will be able to work two shifts with one battery charge.

YOUR ADVANTAGES

- **Lowest consumption in its class** thanks to the latest synchronous reluctance motor technology.
- **Two shifts without changing the battery** thanks to efficient energy management.
- **Higher throughput performance** thanks to lift speed of up to 0.6 m/s and reaching speed of up to 0.5 m/s.
- **Intelligent lightweight construction** boosts capacity by 100 kg.

JUNGHEINRICH

More support for the operator.

Thanks to practical intelligence.

Moving more with less effort – that is the principle we perfected in the EKX. Thanks to the new operating concept, operators will enjoy the use of optimized work stations. The operator position contains impressive, well-designed details and thoroughly successful ergonomics. Smart assistance systems ensure that operators can concentrate on their key tasks.

UP TO
25%
MORE
THROUGHPUT
PERFORMANCE



Efficiency boost of up to 25% thanks to semi-automatic approach along the shortest route.

YOUR ADVANTAGES

- **The perfect workstation**, oriented in every way to the operator's needs.
- **Optimum freedom of movement** with the lowest entry in its class and individually adjustable controls.
- **Modular personal protection and collision avoidance system** ensure safety, reliability and flexibility.
- **Innovative and intelligent assistance systems** that can be selected and combined depending on the application to provide support for the operator.

Room for more.

The roomy operator station provides plenty of freedom of movement. The lowest entry in its class allows operators to get in and out comfortably and quickly.

Everything in view.

Thanks to a roomy operator's cab, operators can clearly see the fork tips to ensure they pick up loads safely. The large color display provides them with all the information they require at a glance.

Work in comfort.

The adjustable comfort seat allows operators to sit and stand comfortably. The inclination of the control desk can be electrically adjusted, allowing operators to set the ideal operating position easily. Upholstered knee supports with integrated storage space support operators while they pick.

Acceleration during approach.

Simultaneous movement of the main and additional lift reduces the waiting time during approach.

Intelligent assistance systems.

To optimally support operators and make their job easier, intelligent assistance systems are available for the EKX. They can be selected and combined according to the application.

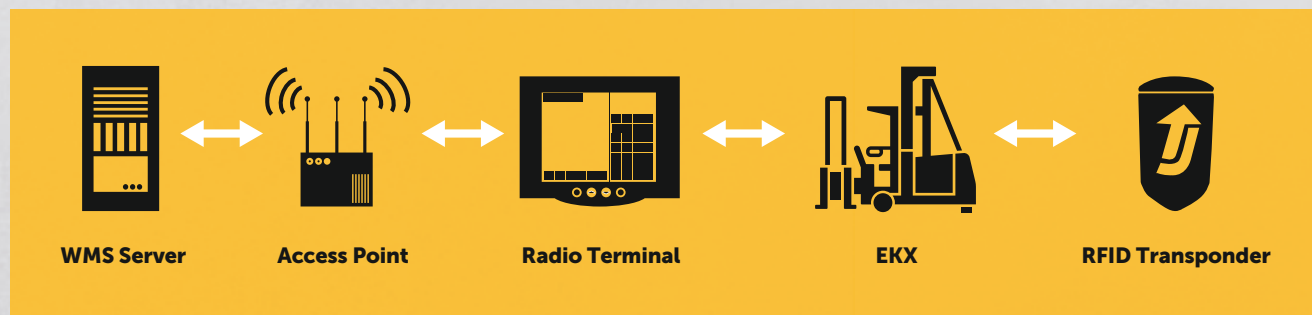
- **warehouseNAVIGATION** for semi-automatic target approach and 25% higher throughput performance
- **Auto ID** for automatic load identification
- **operationCONTROL** showing the load weight on the display
- **PPS Standard** and **PPS Plus** integrated personal protection systems
- **PPS Anti Collision** integrated personal protection and collision avoidance system to allow the use of multiple trucks in the same aisle
- **Floor Spot** as a warning signal for pedestrians



More efficiency for every task.

Thanks to intelligent navigation and system integration.

Any logistics system is only as good as the interaction of its elements. Our Jungheinrich Logistics Interface ensures that the intelligent technology in the EKX works together optimally with your warehouse management system.



Optimized interplay between intelligent technologies accelerates your throughput performance. For example, delivery processes run significantly faster with the warehouseNAVIGATION using RFID technology.



Simple connection.

The Jungheinrich Logistics Interface ensures simple connection to existing warehouse management systems, enabling the efficiency-boosting option warehouse-NAVIGATION. It ensures that the EKX and the warehouse management system are in constant communication. Orders are directly transferred to the EKX and operators only need to use the gas pedal. Thanks to a semi-automatic approach, stackers can find the most efficient route to target positions by themselves.

Precise tracking.

RFID technology makes precise tracking in narrow aisles possible. The system supports manual, semi-automatic and fully automatic operation and tracks the stacker's location at all times.

Flexible adjustment.

To ensure that the EKX always travels with the optimal speed on all types of floors, you can adjust the travel speed profile based on your floor topology.

Additional efficiency.

The automated high-rack stacker EKX 516a develops your additional potential for efficiency. With the modular system, you can automate your system step by step on a flexible budget. We offer you the option of choosing manual, semi-automatic or automatic operation.

YOUR ADVANTAGES

- **Simple connection to existing warehouse management systems thanks to the Logistics Interface by Jungheinrich** – for constant communication between the stacker and the warehouse management system.
- **Precise tracking through RFID technology** which also allows for manual, semi-automatic or fully automatic mode.
- **Smart assistance systems supporting navigation and operation** – guaranteeing you enhanced safety and throughput performance.
- **Optimum speed at all times**, automatically adjusted to the current surface conditions.

More options for all requirements.

Thanks to maximum flexibility.

The best solution for you takes into account all the special features of your warehouse. That's why we developed our modular system to offer you a unique range of configuration options. And if your situation changes, you can adapt your EKX at any time. That's maximum flexibility. Today and in the future.

Individual adjustment.

We will individually configure your EKX as soon as you have provided your system salesperson with all the information on its future application. This includes details like your warehouse strategy, throughput performance and other special requirements. In this way, we ensure that your EKX will efficiently solve all the tasks in your warehouse and is equipped for the future.

Maximum flexibility.

With more than 5 million configuration options, the EKX offers you maximum flexibility for the greatest possible adaptability to your warehouse and logistics strategy. Intelligent trucks management with a TÜV-certified control system is the basis for your trucks flexibly expandable performance package.

Tailored performance packages.

You can select your individual intelligent performance packages to boost performance in exactly the areas where you need more power:

- **drivePLUS** for increased travel speed up to 12 km/h
- **liftPLUS** for increased lifting speed up to 0.6 m/s
- **speedprofilePLUS** for weight-dependent speed profile optimization
- **capacityPLUS** for increased residual capacity
- **Floor Pro** for a faster drive
- **sideshiftPLUS** for 100 mm more reach distance
- **positionCONTROL** for semi-automatic lift height approach



YOUR ADVANTAGES

- **Planning and configuration** of your narrow aisle warehouse from a single source.
- **Up to 7 different performance packages** increase the performance capability of the EKX.
- **More than 5 million configuration options** for optimum adaptation to your warehouse and logistics strategy.
- **Flexible expansion of the EKX application areas** from manual via semi-automatic to fully automatic operation.

MORE THAN
5 MILLION
CONFIGURATION
OPTIONS



The new EKX Cold Store high-rack stacker.

Taking all the features and benefits of the EKX into cold storage.



If you're looking for a quality alternative in the cold store environment, then look no further than the new Jungheinrich EKX Cold Store Stacker. Benefitting from years of experience at the forefront of VNA expertise, the EKX Cold Store builds on all the features and technology of the award-winning EKX Stacker, creating a serious contender in this demanding environment.



Get that warm feeling with Cold Store support from Jungheinrich.

The versatility of the new EKX Cold Store stacker allows it to operate comfortably in various racking scenarios and is supplied as a tailor-made truck to your cold store environment. The EKX sets new benchmarks with regard to flexibility, ergonomics and cost-effectiveness and ensures maximum throughput performance in your warehouse.

The EKX Cold Store High Rack Stacker is ideally suited to the following warehouse environments:

- Very Narrow Aisle Pallet Racking
- Powered Mobile Racking
- Under Pallet Carrier UPC Racking
- Push Back Racking

We have taken state-of-the-art technologies from the EKX Stacker, developed through years of expertise in VNA trucks, into the cold store to create a high-tech stacker that is second to none in this environment, one that will instantly give you a competitive advantage.

Technologies such as energy recovery and effective energy management, enable you to use the stacker for two shifts under normal operation without having to change the battery. And the well arranged, heated cab provides your employees with a safe and comfortable workspace, allowing extended time spent in the harsh cold store environment. Large storage facilities, a clear view, and height and tilt-adjustable control panel gives a comfortable ergonomic working environment.

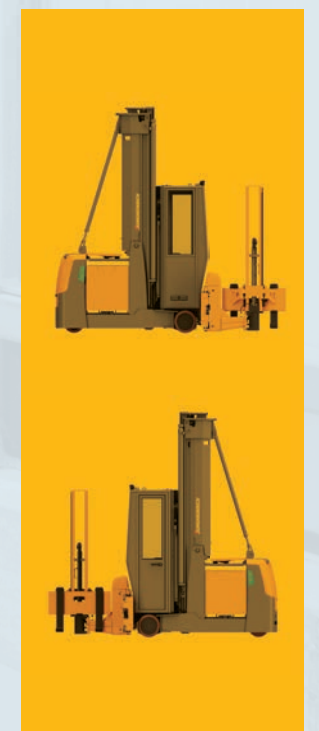
Heated, ergonomic cab.



Tailor-made for your Cold Store!

The Made-to-Measure Cold-Store Package:

- **Ergonomic workstation** - Fully isolated cabin - two-stage heater - fresh air supply with dust filter - partial front screen window heating - electrically adjustable operation console.
- **Completely robust in the freezing cold** - Low-temperature steel for main components - low-viscosity hydraulic oil with anti-stick-slip additive - two-fold polycarbonate cabin screen window.
- **Maximum efficiency** - High throughput with by far the lowest energy consumption available due to synchronous motors and new enlarged battery capacities.
- **Extremely flexible** - Various features of EKX standard portfolio available - wide range of further options to customise to your operation.
- **Proven technology** - Intelligent RFID tracking offers all possibilities for optimal system integration.

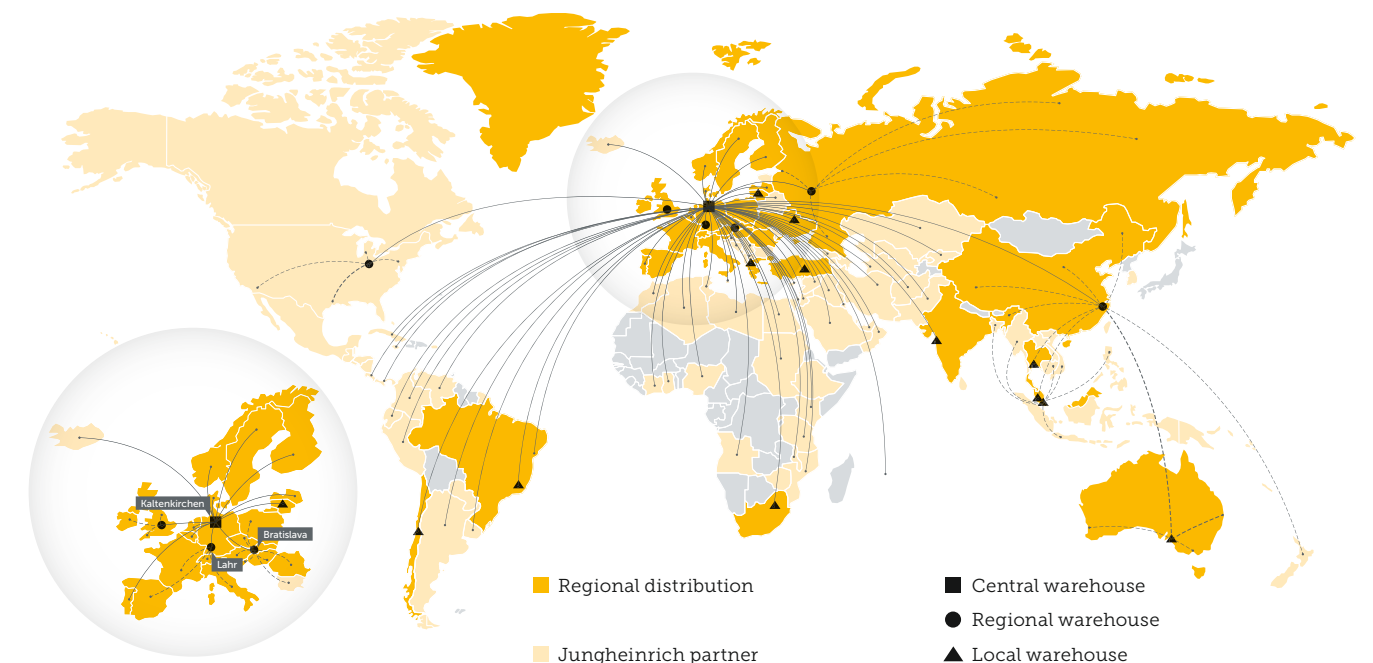




More safety for your logistics system.

Thanks to comprehensive service and support.

Jungheinrich not only represents the highest levels of quality and competency when it comes to developing and manufacturing intralogistics system solutions. From the very start, we have always placed service at the center of everything we do. Globally consistent standards in service quality, short distances to our customers and 24/7 availability: Jungheinrich employees around the world give their all to make your logistics system run smoothly and minimize the risk of downtime.



Wholly owned sales and service companies in Europe, Asia, South America and Australia

24/7
Service and support,
365
days a year

98%
Overnight delivery
in Europe

Close at hand, where and when you need us.

Every day, more than 4,500 Jungheinrich customer service engineers worldwide ensure that your forklifts are operational. With our worldwide service network and professional dispatch capability, we ensure that our service engineers are always on site quickly, when you need them.

Flexible and individual.

Whether full service, maintenance, repair or safety check – we provide you with your personal all-round service package. Together, we will plan the best maintenance measures for your logistics system, ensuring the performance and long-term availability of your forklifts.

The original, fast and reliable.

For the maintenance measures of our Jungheinrich global customer service and support, we use only original spare parts. After all, only the original spare parts guarantee the harmonious interplay of all system components, creating optimal levels of reliability and value preservation. Only Jungheinrich original spare parts satisfy the rigorous performance requirements placed on system devices and materials.

Service & support from a single source.

Jungheinrich customer service supports you worldwide with reliability you can count on. Upon request, our employees are at your service around the clock. This applies to our trained support specialists who man the main hotline for software and control technology and our service engineers on site as well. With Jungheinrich, you receive service and support from a single source.

More scalability for your intralogistics.

Thanks to complete solutions from a single source.

Regardless of whether you want to optimize your existing plant or plan a new one, Jungheinrich offers you scalable logistics solutions from a single source. As a reliable general contractor, we will take care of all the phases of your project – from planning and realization to key hand-over and beyond. Your personal Jungheinrich contact person will coordinate all of the subsystems involved and maintain an overview at all times. This gives you time to focus on your core business.

1
—
Planning and
servicing

2
—
Vehicles and
assistance systems

—
Racking and
storage equipment

—
Software and
automatic

3
—
Realization and
system integration

4
—
Service and
support

Always the optimal solution.

With over 60 years of experience, we will plan and service a tailored logistics solution that is perfectly harmonized to your needs. To ensure that your goods are always at the right place at the right time, we develop individual warehouse and delivery concepts that feature maximum efficiency, process reliability and plant availability for you.

The most comprehensive portfolio.

Based on our core competency in forklift and rack construction, we always find the right solution for you. We offer you a uniquely comprehensive portfolio that contains the hardware and software you require for optimal throughput performance: from vehicles and assistance systems, racks and storage equipment to software and automation – everything perfectly harmonized with each other.

Efficient implementation.

As a general contractor and system integrator, we will take care of the realization and start-up of your logistics solution – from detailed planning to supervising the operational phase. With established product and solution expertise and professional project management, we ensure that everything functions perfectly and guarantee you maximum cost reliability across all logistical subsystems.

Individual premium service.

We will also support you after start-up with our wide range of services and support according to the plan you put together on a flexible, individual basis. Whether you require rapid global customer support, reliable 24/7 support or the prompt supply of spare parts, Jungheinrich will meet your needs as a partner, in an atmosphere of trust and always with the highest quality. So you can concentrate on your core competencies.

ISO 9001 The German production facilities in Norderstedt,
ISO 14001 Moosburg and Landsberg are certified.

 Jungheinrich fork lift trucks
meet the European
safety requirements.

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