

Fork lift trucks, which you can rely on through thick and thin, have a name. **Very simple: Torque Converters.**

Our diesel/LPG fork lift trucks with hydrodynamic drive
and a capacity from 1,600 to 3,500 kg.

**JUNGHEINRICH**
Machines. Ideas. Solutions.



Why should you chose a Jungheinrich fork lift truck?

Very simple:

We have 60 years of experience in fork lift truck manufacturing.



Dr. Friedrich Jungheinrich

With the foundation of H. Jungheinrich & Co. Maschinenfabrik on 7 August 1953 in Hamburg, Dr. Friedrich Jungheinrich lay the cornerstone for a group which, in its 60th year of existence, still characterises itself through passion and innovative ideas in the field of intralogistics. What was started as a small workshop and 30 employees, has developed into an internationally active group with more than 11,000 employees and an annual turnover of more than 2 billion euros. Today, the Jungheinrich group is represented in 32 countries with a direct distribution company as well as in more than 100 countries via a dealer network. Jungheinrich is well equipped with its innovation for the future challenges in intralogistics and looks optimistically at the continued existence as an independent and responsible family business.



Trust your Machine. Rely on Quality.



Working at ease has now become extremely simple. New technology, many years of experience and precision manufacture – Made in Germany. All of this has been offered by both our diesel and LPG powered trucks since 1958.
www.trustyourmachine.com

JUNGHEINRICH
Machines. Ideas. Solutions.

Why is our torque converter the suitable fork lift truck for you?

Very simple:



Our torque converter offers you maximum reliability with each operation.

- Robust Kubota engines tried and tested millions of times.
- High-performance cooler designed to cope with extreme conditions.



Our torque converter offers you the highest level of driving safety and/or stability.

- Counterweight design with lowest centre of gravity.



Our torque converter offers you the best visibility in all directions.

- New compact lifting components with clear view overhead guard design.



Our torque converter is built for ease of maintenance.

- Jungheinrich drive axle with maintenance-free brake system.
- Direct access to all important vehicle components – without special tools.



Our torque converter offers you outstanding cost-effectiveness and energy efficiency.

- Optimally set up components.
- Low fuel consumption engines.
- Load-dependent oil pressure (hydraulic control valve in load sensing technology).



Our torque converter offers you the best basis for effective work.

- Functional and ergonomically designed operators cab – e.g. with electrically controlled parking brake.



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DFG 320



**Why our torque converter
beats everything?**

Very simple:





**Full operational availability even
in high temperatures**

The high-performance cooler is also completely resilient to very high ambient temperatures. The high-performance cooler features an aluminium design combining two systems in one housing: the cooling of the engine and the cooling of the gearbox as well the torque converter. Reliable cooling with every operation.



Safety through engines tried and tested millions of times

The diesel and LPG engines are Kubota's industrial machines. Its robust concept has been tried and tested millions of times in the operation of construction machines. Their technical development is consistently oriented towards durability and creating maximum reliability through years of operation.



Reliable protection against dirt and moisture ingress.

- All electrical components are splash-proof, moisture and damp remain outside.
- The cover of the underbody prevents the ingress of dirt into the engine compartment. It can be easily removed quick for servicing.



**Why does our torque converter
save a life time of costs?**

Very simple:





Built for ease of maintenance

You can reach all maintenance-relevant components quickly and easily:

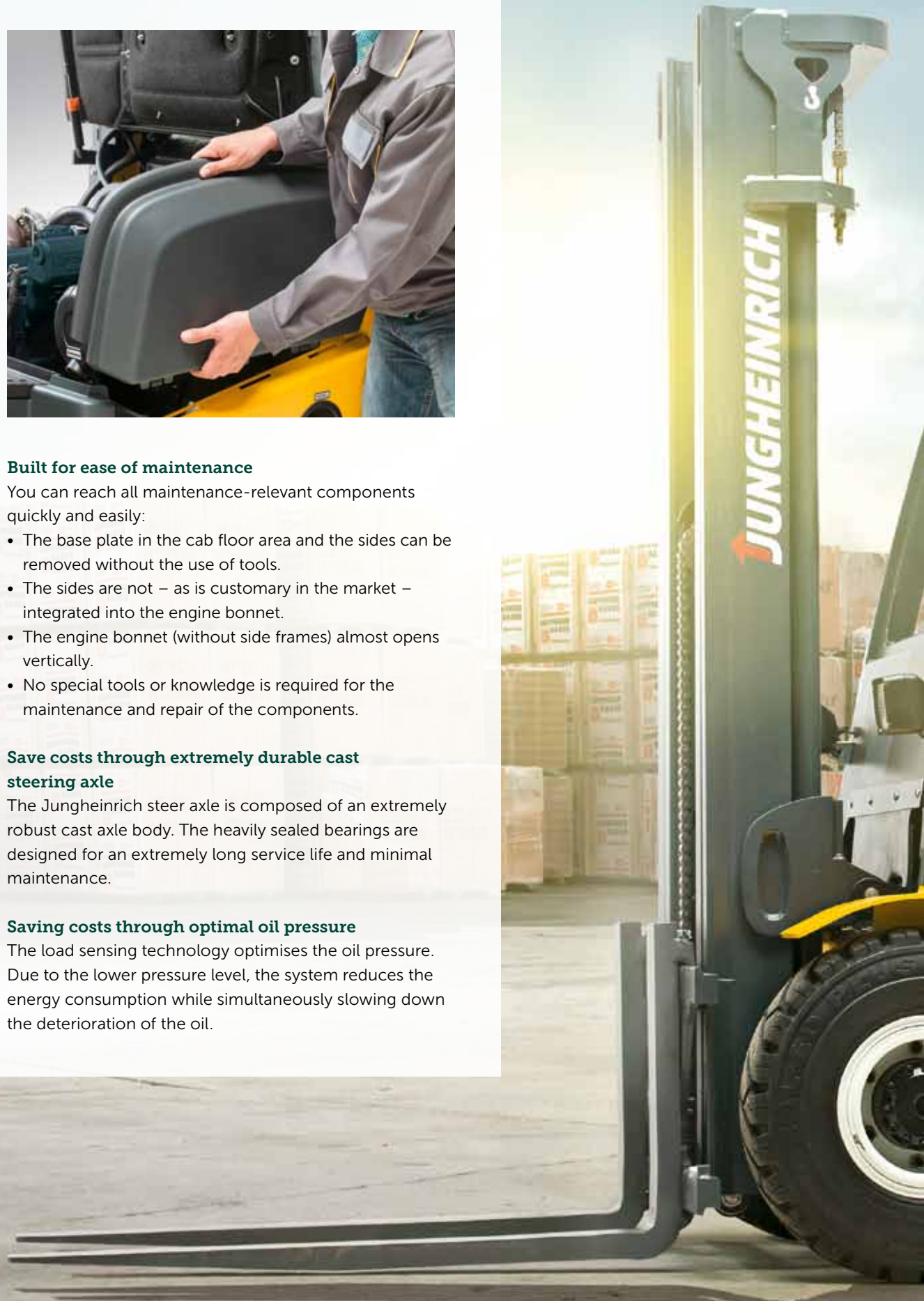
- The base plate in the cab floor area and the sides can be removed without the use of tools.
- The sides are not – as is customary in the market – integrated into the engine bonnet.
- The engine bonnet (without side frames) almost opens vertically.
- No special tools or knowledge is required for the maintenance and repair of the components.

Save costs through extremely durable cast steering axle

The Jungheinrich steer axle is composed of an extremely robust cast axle body. The heavily sealed bearings are designed for an extremely long service life and minimal maintenance.

Saving costs through optimal oil pressure

The load sensing technology optimises the oil pressure. Due to the lower pressure level, the system reduces the energy consumption while simultaneously slowing down the deterioration of the oil.





JUNGHEINRICH
DFG 320

100M



Mechanical engineering made in Germany

Functional. **Sturdy.** **Reliable.**

Saving costs “Made in Germany”

Based on 3D truck modelling, the loads of the supporting structures are simulated and optimised with the assistance of computers. Furthermore, extensive load and fatigue strength tests of components such as the protective cover and frames take place. In order to fulfil the high demand, the torque converters on endurance test-benches and in extremely difficult testing operations must demonstrate their design longevity.

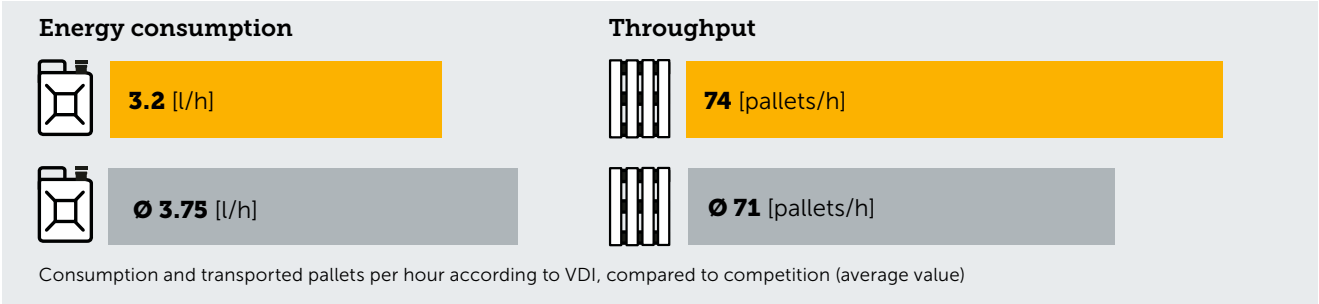
Saving costs through maintenance-free engine control

Engine timing takes place through inclined spur toothed wheels. The advantage: These strong wheels do not require maintenance and are not subject to exchange as with cam belts.

Saving costs through identically constructed engines

The diesel and LPG engines are based on the same engine. Both have a high number of identical components. This results in low costs for spare parts procurement – at the same time giving, high availability.

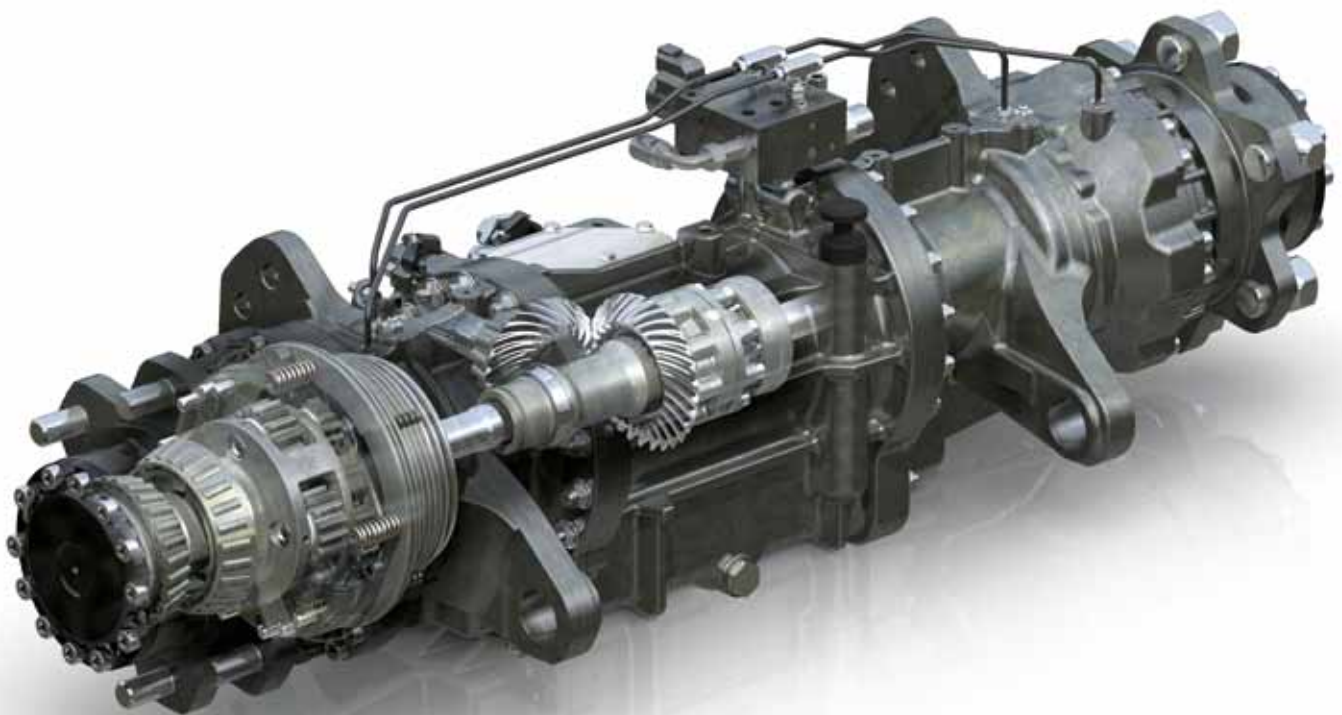
Saving costs through the highest level of energy efficiency





Saving costs with maintenance-free wet-disc brake system

The brake is completely enclosed, extremely low-wear and completely resistant from environmental impact.





RECOTEC INSULATORS BY RPO

JUNGHEINRICH

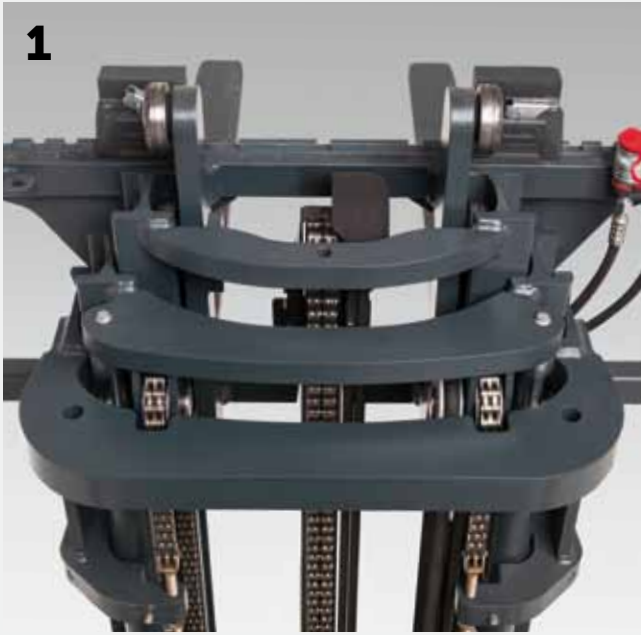
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NAT. - NW. 7854000

**Why our torque converters
simplify the working lives
of your operator?**

Very simple:





1. Clear view of the load

The field of vision is expanded by up to 85 percent due to the compact profile mast design and optimal chain and hose guide routing.

Fast, comfortable handling of loads

The damped lifting transitions smoothly help the handling of loads.

2. Like driving a car

- Automotive pedal configuration with non-slip surface.
- Large, level footwell with vibration-absorbing floor mat.

3. Easy control through ergonomically positioned steering wheel

Steer with the left hand and operate all levers with the right hand – comfortable, intuitive and safe. The steering wheel offset slightly to the left makes this possible.

4. Easy control of all functions

LC display and switches for additional equipment (e.g. lighting and wipers) are easily positioned within the operator's reach and field of vision.

5. Fatigue-free work

- Generous knee and legroom thanks to slim and easily adjustable steering column.
- Hydraulic power steering for effortless, very precise steering.



6. Back-friendly working over the whole shift

The vibrations from the drive are practically non-existent. This is made possible, through two significant construction features: 1. The seating of the engine and the attenuator and 2. The vibration reducing connection between the chassis and working station. The driver's seat offers high suspension comfort and varied setting options.

7. Park safely and easily with the touch of a button

The parking brake operated with the touch of a button can be achieved – without interfering with levers in the knee and entry area.

8. Well-organised working

Numerous storage options, such as drink holder, documents clip and compartment for small parts.

9. Operating levers are easy to operate and space saving

Robust hydraulic levers can be easily and precisely moved even whilst wearing gloves . The position of the levers also offers the operator sufficient leg room.

10. Easier and safer entry and exit

The well positioned, wide footstep and the entry handle welded on the overhead guard make entry easy. The step is clearly visible from the seated position.



1.+2. High degree of stability and driving safety

Supported by the Jungheinrich counterweight design, the inherent centre of gravity is particularly low between the axles and thus, guaranteeing above-average safety reserves when driving and lifting.

3. High degree of safety with the spotlights integrated in the truck chassis contour

Two halogen spotlights in the front and two brake/rear lights to the back in order to see and to be seen.

4. Exceptional driving stability – well placed centre of gravity for maximum stability

Even during dynamic travel there is outstanding stability through reduced pendulum motion aided by the high pivot steering axle. Negating the need for additional electronic assistance systems.

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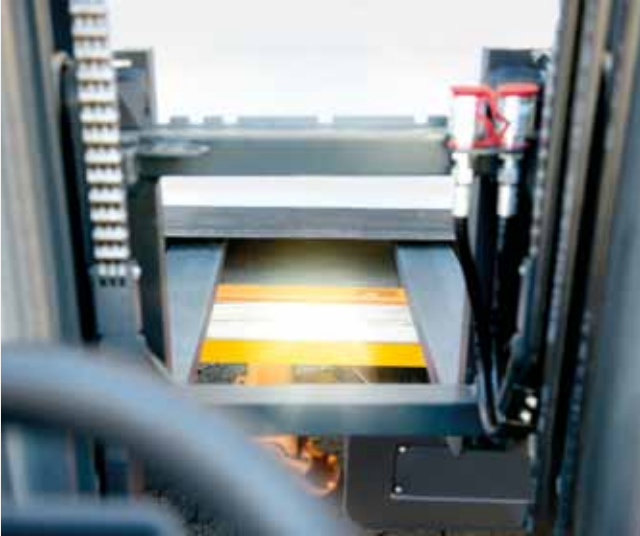


Optional equipment in different versions guarantee the cabin interiors can be custom made for every customer.



- Windscreen and rear window made of safety glass.
- Roof window made of laminated safety glass.
- Heated rear window (with vertical sliding opening).
- Steel doors with sliding windows.
- Heating with air nozzles for the windscreen.

Optimal visibility in all directions create the best conditions for high productivity through relaxed and safe working.



Clear view of fork tips in operation through innovative fork carriage design.



Clear view of fork tips through the front windscreen in free lift mode.



Clear view when placing pallets at height.



Minimising the rear view blind spot through short, low counterweight and a high seating position.

Use our standard safety and environmental benefits:

- Automatic hydraulic and travel interlock when the operator leaves the seat. Tilting, lifting, lowering and travelling are only possible when the seat is occupied.
- Acoustic warning signal when the operator's seat is vacated if the parking brake is not activated.
- Transmission automatically placed in neutral as soon as the operator leaves the truck after activating the travel direction switch.
- All diesel engines comply with the EU exhaust emissions stage 3a regulations.



Clear view of fork tips through compact mast profile and low scuttle design.

Very simple: Torque Converters.



Why your investment decision for the torque converter is correct?

Very simple:

BestInvest

Our torque converters will reduce your long-term operating costs by up to 20 percent. With a wide range of technological and ergonomic advantages that reduce all of the expenses making up the Total Cost of Operations (TCO) to minimum levels, from purchase to disposal. We call this promise BestInvest. It helps you transform your costs into profitable investments. So that you can make the best total investment decision.

The right racking for the right truck

We can provide you with the complete solution for this: Integrated warehouse planning, where the racking and the trucks work "hand in hand" as parts of a single system. From project planning through CAD drafting to handover. From modular racking systems through system platforms to high-bay racking. From consultancy through installation to service. A one-stop shop.

In-house financial services

We offer you a wide range of tailored solutions to suit your commercial, financial and balance sheet requirements – even if these should change over time. This will allow you to keep on the move and respond flexibly. Your area sales manager will be happy to work out which solution is best suited to your needs.

Service with the manufacturer's expertise

Benefit from our service. Benefit from the expertise of the manufacturer. With our full service offer or individual maintenance intervals, you will be convinced by the diversity of our service which is flexibly adapted to your specific application. In this way our service provides you with long-term investment and planning security. With our comprehensive network and the superb training of our technicians, our direct sales network can ensure rapid response times, minimum downtimes and low operating costs.

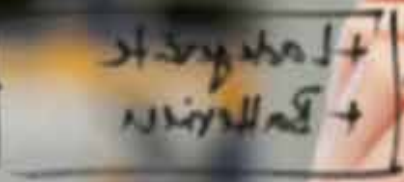
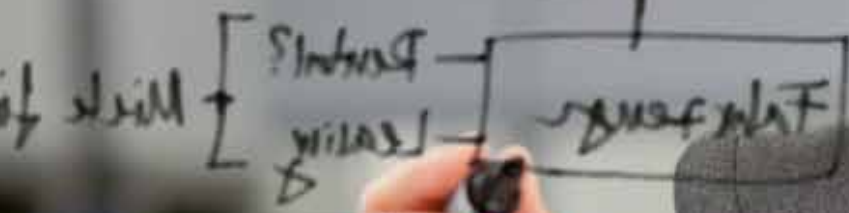
Advantages

- Competent and comprehensive consultancy.
- Short communication channels and rapid response times.
- Short downtimes to save you money.
- First-class training of the service technicians.
- Efficient spare part logistics with 98.5 percent spare parts availability.
- Preserve the value of your trucks with original spare parts.
- Increased operational safety and reliability.



Handelspraktikum
Einführung

Einführung



The whole is greater than the sum of its parts

Our service department has exclusive access worldwide to original spare parts. Using only original spare parts is the only way to maintain optimum interaction between all components, ensuring maximum reliability and preserving value. Only our original spare parts fulfil the high performance requirements of the vehicle and material and secure your warranty protection.

Double digit decrease in CO₂ emissions over ten years

We have drastically reduced the CO₂ emissions for our entire truck range over the last ten years. And by more than 25 % for electric and diesel/LPG fork lift trucks. And by more than 35 % for vertical order pickers and narrow aisle/reach trucks. We have done this with a series of technological innovations which are setting current standards in CO₂ output.

Significantly reduced CO₂ emissions also mean significantly reduced energy costs.

Our entire product cycle now features technical innovations for reducing CO₂ emissions, from manufacturing through usage to reconditioning. And our high-tech solutions are really setting standards in the usage phase, which is where 80 percent of all emissions occur. You can easily use this advantage to your benefit, immediately reducing your energy costs considerably while simultaneously achieving maximum throughput rates. www.jungheinrich.com/oekobilanz

TÜV-certified product life-cycle assessment

TÜV-Nord has systematically analysed the life-cycle assessment and certified it in accordance with DIN EN ISO 14040, giving us the environmental rating 'Geprüfte Produkt-Ökobilanz' [Certified Product Life-cycle Assessment].





JUNGHEINRICH

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

 Jungheinrich trucks
conform to the European
Safety Requirements.

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