

Rotating driver's workstation and  
rotating cab: Reliable solutions for more  
ergonomic and effective working

Linde Material Handling

*Linde*



# Perfect the art of rotation and benefit from increased safety, comfort and cost-efficiency

Producing a top performance day after day is linked to enormous physical stress for forklift truck drivers

Particularly when it comes to transporting large loads, as these inhibit the drivers' view in front, making reverse travel necessary. When driving backwards, drivers need to continuously twist their upper body in order to keep the direction of travel in view. This movement increases transport safety, but after long periods it can damage the spine. The spine is put under extreme pressure, which can cause pain. This can often even lead to lasting damage and downtime due to illness.

Strained movements during reverse travel are a thing of the past for drivers of Linde trucks

Thanks to the rotating driver's workstation for IC trucks and electric trucks, or the rotating cab for heavy-duty trucks, drivers no longer need to twist because the entire workstation rotates. This feature not only improves the view of the load and direction of travel significantly, but also the safety of the entire operation. In addition, the musculoskeletal system of the driver is relieved and symptoms of fatigue and health risks are reduced.

The positive results: faster manoeuvring and safer load handling, increased work efficiency and handling performance



Operating the rotating driver's workstation is simple and intuitive. Using a single handle, the entire workstation including the seat with operating unit, the steering wheel and the pedals can be adjusted to the required position. In addition, the rotating driver's workstation can be swivelled in intermediate stages.



With the help of the rotating cab, the driver always has an optimum circumferential view. Compared to the standard model, the cab height is increased by 600 millimetres, and the cab can be rotated in infinitely variable stages using the joystick or the position switches by up to 180 degrees to the left or 65 degrees to the right.

## A stream of new Linde innovations for a healthy and efficient workplace

Less physical stress on the driver: Linde engineers always do their best work to achieve this goal. After all, an ergonomic and comfortable workplace is also an efficient workplace. And ultimately only a healthy driver will be a motivated driver. For this reason, Linde MH focuses on continuously reducing the physical strain on drivers in key areas such as the driver's workstation, the operating concept of the truck, the controllers of the truck, human vibration, CO<sub>2</sub> emissions and fine dust emissions. Our commitment to making improvements in these areas is something that our customers rely on.



Find out more about the features of the rotating driver's workstation.

# Unique ergonomics proven to reduce physical strain, thereby minimising downtime

## Fewer back problems and symptoms of fatigue

According to statistics generated by German health insurance organisation DAK and by Germany's company health insurance fund (Berufsverbandes der Betriebskrankenkassen – BKK), 25 % of all work-related downtime is due to musculoskeletal problems.

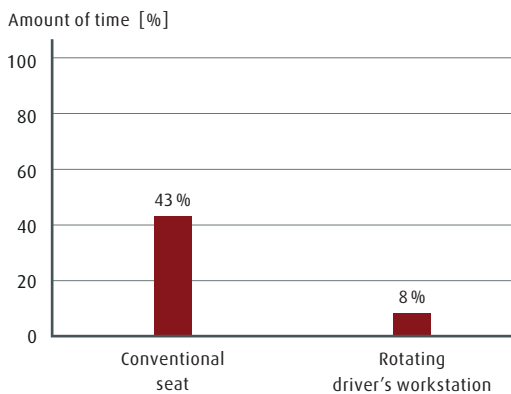
Across Germany but also in Great Britain, this is the most common form of ill health at work referring to the Health and Safety Executive Research Report.

In a period of one year Great Britain registered a loss of almost 5 million working days due to back pain caused or made by work. It is no wonder that forklift drivers are part of this problem group given the need for them to often assume a position that has a negative impact on their backs.

A survey by the German employers' liability insurance association for trade and logistics (Deutsche Berufsgenossenschaft Handel und Warendistribution — BGHW) has revealed that the rotating driver's workstation reduces physical strain on the driver by approx. 60%. The survey confirms that the rotating workstation significantly reduces health risks.

## New quality standard for the operation of trucks

Thanks to the introduction of the rotating driver's workstation, unnatural body movements, symptoms of fatigue and permanent back problems are significantly reduced. With regard to the operation of trucks, this means less downtime as a result of the inability to work. Even the number of errors and accidents caused by fatigue and physical strain can be reduced.



### Comparison of back torsion

The amount of time spent on a conventional seat in which the spine is in a position no longer accepted under DIN EN 1005-4 is 43%. The rotating driver's workstation reduces this amount to just 8%.



## Awarded and certified

The rotating driver's workstation received the MM Award from the "MM Maschinenmarkt" industry magazine in 2011 at the CEMAT trade fair. Testing by service corporation TÜV Süd confirmed the enhanced safety standard offered by the rotating driver's workstation and the German employers' liability insurance association even recommends the solution with its own certificate.





## Proven in use. Opinions from actual users:

"I always had problems with my cervical spine before because I had to drive backwards for six hours every day. Thanks to the rotating driver's workstation, I now have a full view of my route and of the load."

Marywam Ahmed, Forklift Truck Driver,  
Solvay Fluor GmbH in Bad Wimpfen, Germany

"The rotating driver's workstation is another important step forwards in terms of ergonomics and occupational safety, as well as being a fantastic, innovative solution."

Christoph Sommer, Operations Manager,  
Solvay Fluor GmbH in Bad Wimpfen, Germany

"In relation to the postures examined, using the rotating driver's workstation enabled a significant reduction in health risks in line with the ISO/CD 11226 and DIN EN 1005-4 standards due to the fact that less physical stress is placed on the musculoskeletal system."

The employers' liability insurance association  
for trade and logistics

# Our offer for you: Impressive versatility

Working as part of an innovative system partnership with NEUMAIER Industry, Linde has developed an exclusive rotating driver's workstation for electric trucks and IC trucks, and the rotating cab for heavy-duty trucks.

The rotating driver's cockpit is available in numerous variants for different driver sizes and truck models. As you would expect, a selection of different seat types is also available. What's more, this robust design can be retrofitted for many of the truck series from Linde.

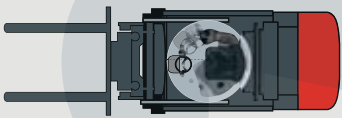
All heavy-duty truck models can be equipped with a rotating cab; this solution is available via the Linde dealer network. The Linde dealer network can also arrange for the solution to be retrofitted.





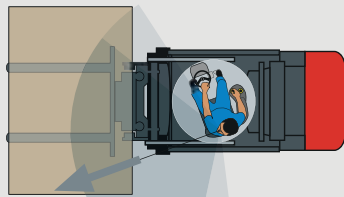
## Everything at a glance: The rotating driver's workstation for electric trucks

Complete visibility with the rotatable driver's workstation (0° - 70°)

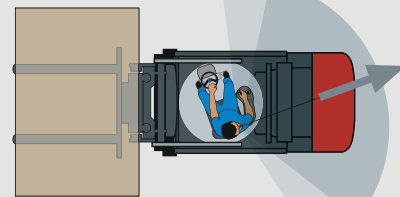


**Tonnage: 2,500 - 5,000 kg**

Visual field at a seat angle of 70°, head facing left

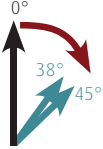
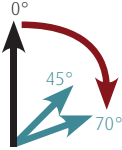


Visual field at a seat angle of 70°, head facing right



Active visual field

Passive visual field

Model	Type	Angle of rotation	Battery	Battery replacement	Additional information
387	E25/600 HL E30/600 HL E35 HL	Right 0° - 38° - 45° 	Only available with flat batteries 80 V 5PZS 575 80 V 5PZS 625	C-hook Battery pallet Hydraulic shift out	Available for electric trucks in long and tall designs in combination with the comfort overhead guard (+80 mm)  Only available with the standard or comfort driver's seat  Reduced residual load capacity (200 kg)
388	E35/600 H E40/600 H/HL E45/600 H/HL E50/500 HL E50/600 HL	Right 0° - 45° - 70° 	Only available with flat batteries 80 V 5PZS 625 (for H trucks) 80 V 6PZS 750 (for HL trucks)	C-hook Battery pallet Hydraulic shift out	Reduced residual load capacity (200 kg)

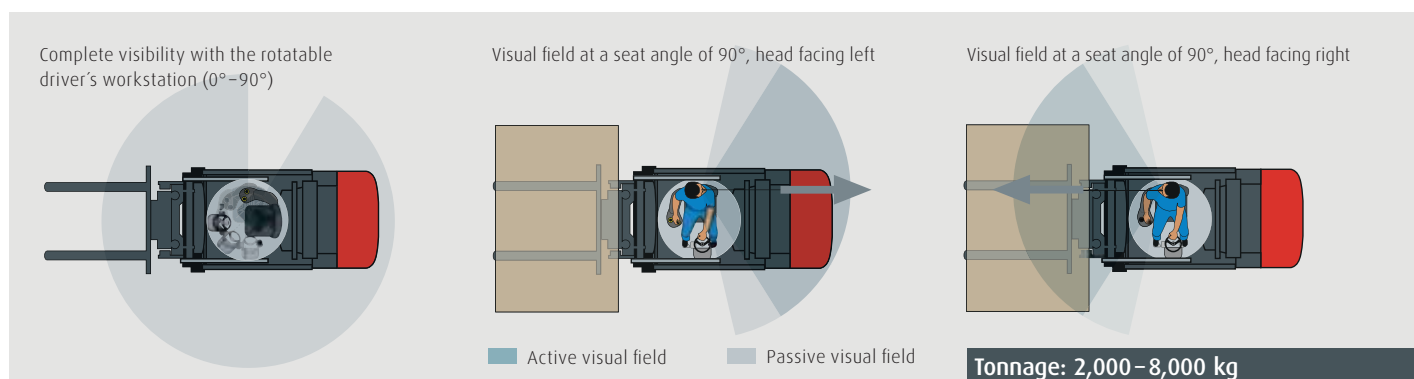
➡ = Normal pedal ➡ = Release pedal\*

\* In the rotated seat position, the distance between the pedals and the driver's seat is slightly smaller.





## Everything at a glance: The rotating driver's workstation for IC trucks



Model	Type	Angle of rotation	Option 1	Option 2	Additional information
392 393	H20 H25 H30 H35	Left 0°-90°	Left 0°-45°-90° Only with single pedal	Not available	Only available with full cabin or security bracket door  Option 1 is recommended for drivers taller than 1.85 m  Only available with the standard or comfort driver's seat
394	H40 H45 H50	Left 0°-90°	Left 0°-35°-90°	Left 0°-35°-90° Right 35°	Only available with full cabin or security bracket door  Option 2 without air conditioning and roof panel wiper  Only available with the standard or comfort driver's seat
396	H50 H60 H70 H80	Left 0°-75°	Left 0°-45°-75°	Not available	Only available with full cabin or security bracket door

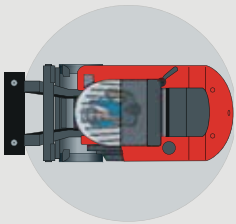
\* In the rotated seat position, the distance between the pedals and the driver's seat is slightly smaller.

➔ = Normal pedal    ➡ = Release pedal\*

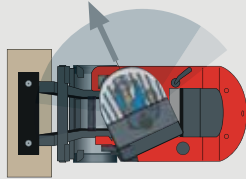


## Optimum circumferential view: The rotating cab for heavy-duty trucks

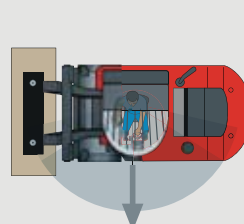
Complete field of vision with rotating cabin, left 0–180°, right 0–65°



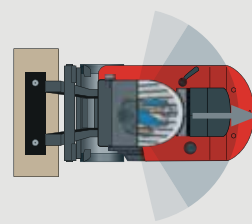
Field of vision while turning the cabin 65° to the right



Field of vision while turning the cabin 90° to the left



Field of vision while turning the cabin 180° to the left



Tonnage: 10,000–18,000 kg

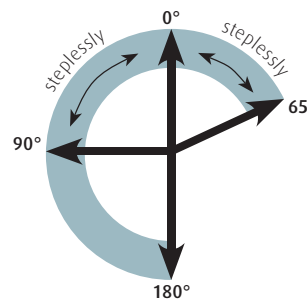
Active field of vision

Passive field of vision

The optional rotating cab is a special feature of the Linde H100 to H180 heavy-duty trucks and allows the driver to rotate the entire cab in infinitely variable stages up to an

angle of 90° to the left and 65° to the right. Another feature is the ability to fully rotate the cab 180° to the left.

Model	Type	Swing angle
1401	H100	Steplessly rotating cabin left 0°–180° right 0°–65°
	H120	
	H140	
	H150	
	H160	
	H180	



# Progress through innovative technology

The rotating driver's workstation and rotating cab represent user-friendliness, the best possible ergonomics and improved cost-efficiency. Increased handling performance and enhanced safety for drivers and the goods being transported are just as key as the quality of the design.

## The facts

- Fantastic adaptation options enhance driver comfort and simultaneously reduce physical strain.
- Optimum level of safety thanks to excellent visibility when transporting large loads that are difficult to see over.
- Reduced physical strain on the driver leads to less downtime caused by illness, thereby increasing productivity.
- Robust construction provides a long service life and minimises maintenance and repair costs.
- Increased visual field improves handling performance when dealing with loads that are difficult to see over.
- Simple operating concept enables rapid training and safe use.



Linde Material Handling is one of the world's leading manufacturers of industrial trucks. And there is a reason for this success. Linde products not only win over customers through their innovative technology that has a reputation for excellent performance — customers are especially convinced by reduced energy and operating costs, which are up to 40% lower than those of the competition.

The high quality standards applied to the manufacturing process also set the benchmark for the quality of our services. With ten production sites and an extensive network of distribution partners, we are available around the world and around the clock.

Your local Linde partner offers a complete service package from a single source. From expert advice to sales and servicing, and with the right financing options, of course. Whether leasing, hiring or hire purchasing — you maintain the flexibility you need for your work and for your decisions.

Engineered for your Performance

Linde Material Handling