

# The Linde Tractor Range. 2 to 25 tonnes

Linde Material Handling

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## The Linde Tractor Range

### Towing and platform tractors providing versatile solutions

The innovative Linde Tractor portfolio provides bespoke towing and transporting solutions for virtually every type of industrial and commercial application. These include airports, hospitals, railway stations, post office depots, automotive and manufacturing plants, warehouses, military applications, fruit, vegetable and flower markets etc..

Excellent ergonomics combined with advanced technology and a distinctive, highly functional design, raise the benchmark for performance, productivity and consistent reliability in demanding applications.



These attributes are a direct result of the Linde continuous research and development programme, combined with the latest production processes, which set the industry standard and underpins our long-term commitment to our customers.

The Linde tractor range provides a comprehensive selection of options to suit individual applications. The tractors can be fitted with different types of tyres. Cabins are optionally available for the P60/P80, W08 and P250, W20 models providing additional versatility in applications involving internal and external duties in various climatic and floor surface conditions.



## P20 and W04

### Delivering cost effective logistics

The compact stand-on/sit-on Linde P20 tow tractor has a nominal 2 t towing capacity. Its ergonomic design and a contoured chassis width of only 600 mm, offers the perfect solution for intensive applications in narrow corridors and aisles or confined operational areas.

The foldable and height adjustable seat gives the operator enhanced ergonomic comfort for applications involving intensive towing duties. This versatile tractor range also incorporates lateral and vertical battery changing ability within one chassis.

The W04 is a platform version with a 0.4 t carrying capacity on the integrated platform.

- The contoured chassis design ensures the operator is always protected within the chassis profiles.
- A low step-in height as well as knee protection and an adjustable seat provides the operator with a comfortable working environment.
- The maintenance-free AC 1.5 kW drive motor delivers smooth, powerful torque when towing the rated loads. Optional lighting is available for enhanced safety in poorly lit areas.



The versatile P20 and W04 provide highly efficient and ergonomic stand-on and sit-on operating modes as standard.



# The compact tractors P20 and W04 offer highly productive solutions

Assembly lines, maintenance operations and multiple load transfer duties are among the numerous applications that can be fulfilled with the Linde P20 and W04. In busy environments, the narrow chassis of the P20 and W04 offer the ideal solution. Their robustness and versatility ensure every operator is able to carry out their tasks safely, efficiently and in comfort.

The Linde P20 and W04 are the ideal partners to enhance logistical operations in modern businesses.



Sit-on operating mode



Stand-on operating mode



Small turning radius

## P30 and P50

# Designed to deliver seamless logistics

The Linde tractor portfolio also includes the P30, a stand-on tractor with 3 t towing capacity and a compact carrying platform, as well as a pedestrian operated tractor the P50, with a nominal 5 t towing capacity.

The unique driving posture afforded by the design concept of the P30, enables safer, faster and more efficient single or multiple trailer transfer operations.

The compact design of the pedestrian operated P50 makes it the ideal choice for short to medium distance load transfer duties in narrow or confined areas.

- A powerful AC drive motor for rapid acceleration up to 10 km/h for the P30 and 6 km/h for the P50.
- The tiller of the pedestrian operated P50 incorporates a profiled twin grip handle bar with ergonomic thumb operated controls encompassed by contoured steel profiles protecting the operator's hands whilst travelling and manoeuvring. For the P30, a padded adjustable backrest provides a comfortable working posture to promote efficient productive work cycles.
- The smoothly rounded contours and low skirt design of the versatile stand-on P30, provides nimble manoeuvrability and protection in areas where space is limited.
- The P30 has proportional, self-centering electric steering for effortless, fatigue-free manoeuvring and precision control.



Stand-on tractor P30 with unique visibility and pedestrian tractor P50 for extremely confined areas.



An optimum level of productive uptime is achieved with the rugged and reliable design. The maintenance-free AC drive technology combined with CAN bus diagnostics and easy access to all key components for service routines culminates in very cost-effective productivity and lower operating costs.



## P30 C and P50 C

# Providing logistical solutions for narrow corridors, production aisles or confined spaces

The compact P30 C and the reinforced P50 C tow tractors are particularly suited to multiple load transfer duties in narrow corridors, aisles or the confined spaces often encountered around assembly lines.

In addition to an adjustable backrest and console/steering control, these versatile tractors have a unique suspended 'U' shaped platform, which virtually eliminates the effects of vibrations caused by uneven floor surfaces.

The unique suspension links the three main points of contact between the operator and the tractor, namely: backrest-seat shape, platform and control console. This provides a greater degree of comfort when driving over long distances or on uneven floors.

→ The compact design of the P30 C/P50 C control handle ensures that the operator remains well within the tractor contours while driving and manoeuvring.

- The ergonomic twin-grip steering control incorporates a profiled wraparound hand guard and the rugged steel front bumper provides protection for both the operator and tractor.
- The rugged construction of the steel chassis and steering control, together with a heavy duty towing coupling and industrial quality components, results in consistent long-term reliability and high productivity.
- The proportional power assisted steering is also self-centring for precision control and manoeuvring. The adjustable steering resistance and positive steering feedback ensures the tractor stays on track. Automatic speed reduction control when cornering means the operator is always safely in control.
- Integrated CAN bus connectivity brings intelligent electronic management of all key components for rapid and easy diagnosis. All performance parameters can be accurately adjusted by the service technician to suit each individual application.



P30 C (left) is also available with innovative Li ION technology (right) for more flexibility.

The Linde Matrix Range, designed to provide efficient, productive logistical solutions to meet the needs of modern businesses.

The unique design concept of these compact tractors delivers levels of comfort and performance that are second to none.

The P30 C suspended stand-on platform has a cushioned, non-slip covering for enhanced comfort and safety while



completing intensive trailer transfer duties or travelling over uneven surfaces. The workstation and key components are effectively isolated from floor surface vibrations for optimum comfort and extended component life.

The ergonomic suspended workstation of the P30 C incorporates a digital multifunction display advising the operator of the tractors status. Access to the tractor is available via an ignition key or with a PIN code where additional management control is required, to restrict use to authorised personnel only. Convenient storage pockets are provided for work documents and personal items.

The adjustable backrest enables each operator to select the most comfortable working posture for a strain-free/fatigue-free working posture.





## P60/P80 and W08

### Towing solutions for various applications

The Linde 6 t and 8 t tractor and load transporter series offers impressive towing performance and efficiency. The spacious operator's compartment is ergonomically designed to create a highly productive, fatigue-free working environment.

With its compact three-wheel configuration the Linde P60 and the reinforced P80 electric tow tractors have nominal towing capacities of 6 t and 8 t respectively, while the W08 platform tractor adds another dimension to this versatile range. These powerful, highly manoeuvrable tractors will operate with ease in areas with narrow aisles or corridors and where space is limited. This benefit makes the tractors the ideal choice for applications requiring the rapid and efficient transfer of multiple trailer loads in various industrial and commercial applications, as well as special-

ised repair workshop duties. Whether in automotive plants or airports, the P60/P80 and W08 can be found negotiating the ramps and loading docks with ease.

- Linde Curve Assist for automatic speed reduction when cornering
- Linde Gradient Hold Control and Gradient Start Assist
- Selectable performance and energy saving driving modes
- Energy saving regenerative electric braking as accelerator is released
- All-wheel braking for impressive stopping power in all situations
- Self-adjusting hydraulic drum brakes on all three wheels minimizes maintenance
- Easy lateral battery changing from the side



W08 and P80: Their rugged construction ensures durability and consistent reliability.



## Typical applications for P60/P80 and W08 Automotive and manufacturing plants

There are many logistical tasks required to ensure the uninterrupted flow of components to feed modern assembly lines. Continuous just-in-time delivery to the assembly areas is an essential element in ensuring that the production process is highly efficient and cost effective.





Equally important is the need for the subsequent efficient transfer of the finished goods from production to the storage and dispatch areas subsequently to local and central distribution centres.

Whatever the tractor requirement might be, Linde has the ideal solution within its product portfolio to match the needs of demanding applications.

A powerful 4.5 kW sealed AC, high torque drive motor for optimum pulling power and up to 20 km/h unladen speed. Advanced, energy efficient Linde electronic control delivers seamless travelling and manoeuvrability.

- Robust Linde design and construction
- Reliable and durable components
- Heavy duty drive axle and brakes
- Impressive pulling power





## Ideal for internal and external applications

This tractor range can be fitted with optional cabins and different tyre configurations to fulfil the differing requirements for internal and external applications. Reliable and durable components for continuous operation in very intensive applications – in hot, cold, wet and dusty environments – this impressive series delivers new levels of performance and productivity. Automatic speed control on gradients as well as gradient start without rollback, are standard safety features.





With its compact, rugged chassis and exceptional manoeuvrability combined with impressive pulling power, these tractors are ideally suited for a wide variety of applications in every type of industry. The wide choice of options enables a bespoke specification to be selected to meet the needs of individual businesses.

This range of tractors and load transporters sets new standards of performance and operator comfort. There is an increasing demand in a wide range of applications, for the rapid transfer of goods in single or multiple trailer loads, using electric powered tractors. The Linde tractor portfolio, is designed to meet the developing and changing needs of modern businesses.



In-house transport



Supply of the assembly lines

## P250 and W20

# A rapid return on investment

With a strong style and performance, the Linde AC powered P250, 25 t electric tow tractor and W20, 2 t platform tractor incorporate the latest ergonomic concepts. This results in tractors, which provide a superb working environment for the operator, who will be motivated to deliver consistently high levels of efficient productivity.

Apart from the spacious and user-friendly cab layout, a full suspension seat, comprehensive instrumentation and adjustable steering column, the tractors have all-wheel suspension and the cab is mounted on hydraulic dampers.

This attention to detail results in exceptionally smooth ride characteristics which minimise the effects of road surface vibrations. This results in fatigue free working throughout the shift and prolongs the life of the equipment.

Utilisation is therefore optimised for a rapid return on Investment.

The rugged chassis has been designed using finite element stress analysis techniques to ensure maximum structural integrity, which is able to withstand continuous heavy-duty working environments, delivering maximum uptime at minimum cost.

The powerful, maintenance-free AC powered twin drive motor axle with integrated suspension provides excellent performance even in slippery conditions. The drive motors are independently controlled and require no differential, which improves both reliability and efficiency by reducing power losses. Slowing the inner wheel during cornering enhances tyre adhesion and traction performance, preventing skidding and stabilising ride characteristics.

AC controllers produce seamless acceleration and top speed combined with smooth, precise manoeuvring in all situations. The operator is always in control with the intelligent and perfectly matched AC power system allowing safe and productive operation.



P250 and W20 cabins with hinged doors.



The hydraulically suspended cab on the P250 and W20 tractors contributes significantly to operator comfort and absorbs road surface vibrations.

## A winning formula Performance with impressive stopping power

A perfect driving posture with all controls, ergonomically located, increases the ease of use and provides a fatigue-free working environment.

A powerful driving performance is coupled with three independent braking systems to cope with every eventuality.

The regenerative braking delivered by the AC controller automatically retards the speed of descent on gradients ensuring that the operator is always in control and is able to select a rate of travel to suit the circumstances and operational requirements.

Regenerative braking is extremely effective and ideal for normal operational conditions, which means that the use of the service brakes is minimal, leading to lower energy demand and reduced maintenance costs. The powerful hydraulic disc brakes on the front wheels and external disc brakes on the rear wheels provide impressive stopping power in all circumstances.

A spring operated parking brake with push button release is automatically applied when the operator leaves the seat.

- Powerful AC drive motor: 2x10 kW for P250 TrActive, 5 kW for W20 TrActive
- 80 volt system as standard
- Powerful acceleration and deceleration torque
- High speed over long hauling distances
- High active motor braking torque minimizes brake wear



Flatbed W20, P250 with cutaway for a clear view to the tow coupling, W20 with a flexible canopy and hinged side panels



## Impressive performance – P250 and W20 Versatility to match individual requirements

Versatility is the key and Linde tow tractors are designed to meet the needs of a wide range of industries and commercial operations in all ambient conditions.

Whether towing up to 25 t or carrying up to 2 t, on level surfaces or on gradients, in rain, snow or sunshine, these superb tractors will keep on working consistently and reliably, delivering high productivity for your business.

Also in manufacturing or commercial industries, airports, wholesale fish, fruit or vegetable markets, the military or post office etc. the Linde tractor range provides bespoke solutions and a rapid return on investment.

With a nominal towing capacity of 25 t and unladen traction speed of 25 km/h the P250 offers flexible high performance which is optimised by the Linde digital AC control system providing precise, energy saving control of acceleration and speed for high productivity. The curved front screen and profiled chassis ensures excellent manoeuvrability.





A low step facilitates access to the spacious operator's cabin where the automotive layout of the pedals, direction lever, steering wheel and controls, together with a fully adjustable suspension seat provide a comfortable and fatigue-free working environment. Cab suspension dampers and a spring damped suspension system front and rear ensures superb levels of driving comfort.

With the dual capability carrying 2 t on the platform and towing nominal loads of 4.5 t, the W20 offers flexible high performance which is optimised by the Linde digital AC control system that provides precise, energy saving control of acceleration and speed for high productivity.



# The Linde tractor portfolio

## Providing the ideal logistical solution, matched to your



Model P20, W04

Series 1193

P20 tractor  
Towing capacity 2 t

W04 load transporter  
0.4 t on platform  
Towing capacity 1 t

Perfectly suited to narrow aisles applications with a chassis width of 600 mm, the P20 with 2 t nominal towing capacity and the W04 load platform version with 0.4 t carrying capacity. A smoothly rounded chassis profile enhances operator protection. A version with higher ground clearance for external applications is also available. The adjustable handle bar provides an ergonomic driving position. The vertical and lateral battery changing facility provides additional versatility in multiple shift applications.



Model P30

Series 132

Towing capacity 3 t

This compact stand-on tow tractor is designed to undertake versatile and highly efficient load transfer duties in a wide variety of applications where space is at a premium. Twin-grip self-centring steering requires minimum effort and contributes to maximum manoeuvrability. The powerful AC drive motor gives seamless acceleration to 10 km/h, laden or unladen.



Model P30 C/P50 C

Series 1190

Towing capacity 3 t and 5 t

Stand-on operated. The unique design of the operator's compartment offers a level of comfort previously unknown in the market using a unique suspended and damped 'U' shaped platform. The compact design allows towing applications in narrow aisles. The P30 C has a travel speed of up to 10 km/h and the reinforced P50 C up to 8 km/h, both laden and unladen.

Linde solutions for your business.

# business needs



Model P50

Series 131

Towing capacity 5 t

Pedestrian operated, the compact P50 tow tractors offer smooth handling performance allowing the operator to work through the shift efficiently and without fatigue. They feature twin-grip tiller arm control, seamless acceleration to 6 km/h, effortless power steering, automatic electric braking and ample storage compartments.



Model P60/P80, W08

Series 1191

P60/P80 tractor  
0.15 t on platform  
Towing capacity 6 t and 8 t

W08 load transporter  
0.8 t on platform  
Towing capacity 7 t

Heavy duty, rugged profiled chassis, with a steel encased carrying platform and smoothly rounded profiles design. An overall width of 996 mm enables this tractor series to operate in narrow aisles, corridors and other restricted environments. With its powerful 4.5 kW sealed AC drive motor the tractors are perfectly suited for internal and external applications. Also available with a choice of modular cabin versions and pneumatic or super elastic SE non marking tyres. Easy access, non-slip steps. Adjustable seat, automotive control levers. Adjustable steering column. Swinging arm suspension on all three wheels. 48V DIN batteries up to 375 Ah capacity. Efficient and safe battery side changing design.



Model P250, W20

Series 127

P250  
0.3 t on platform  
Towing capacity 25 t

W20 load transporter  
2 t on platform  
Towing capacity 4.5 t

Powerful tow tractor with low profile chassis and fully equipped hydraulically damped operators cab with sliding or hinged doors. Available in short or long wheelbase versions with twin maintenance-free AC drive motors, all-wheel suspension and braking, travel speeds up to 25 km/h, hydrostatic power steering and inching control. Platform tractor with platform lengths of 2200 mm or 2600 mm, which can be adapted to include aluminium side panels. Rear multi-position towing coupling as standard. Selection of optional front and rear towing couplings. Automatic coupling option.



Linde Material Handling ranks among the world's leading manufacturers. This position has been justly earned. Linde trucks excel not only with their recognized innovative technology but especially their low energy and operating costs, which can be as much as 40% less than competitors.

High quality in production is matched by the standard of the services we provide. With a comprehensive network of local sales partners, we are at your call around the clock and around the world.

Your local Linde partner offers you a complete single-source package. From qualified pre-sales consulting through the sale to after-sales service; including finance packages matched to your business requirements. Leasing, rental or hire purchase. Flexibility is maintained in your operational and decision-making processes.

Engineered for your Performance

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