Electric Tow Tractor
Capacity 25000 kg
P 250

SERIES 127-02

Linde Material Handling

Safety

The heavy duty chassis and cab module provide assured protection for the operator while three independent braking systems deliver responsive stopping power for all situations including automatic speed control descending gradients. A low centre of gravity ensures outstanding stability.

Performance

With a nominal towing capacity of 25.0 tonne and unladen traction speed of 25 km/h the P 250 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 curved front screen and profiled chassis ensures excellent manoeuvrability.

Comfort

A low step facilitates access to spacious operator's cabin where the automotive layout of the pedals, direction lever, steering wheel and controls, together with a fully adjustable suspension seat provides 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.

Reliability

Designed for intensive heavy duty applications the rugged, robot-welded chassis is constructed from heavy section steel plate for optimum torsional stiffness and rounded corners for high resistance to impacts. All key components are protected within the chassis while electronic components are housed in sealed aluminium enclosures for assured reliability and long life.

Productivity

Two powerful, high torque 10 kW AC drive motors provide impressive pulling power for a variety of intensive applications. The energy saving Linde AC digital controller combined with excellent manoeuvrability and an intuitive interface between the operator and tractor, translates that power into versatile, seamless performance and high productivity.

Technical data (according to VDI 2198)

Characteristics	1.1	Manufacturer		LINDE	
	1.2	Model designation		**P 250 (SWB)**	**P 250 (LWB)**
	1.3	Power unit: battery, diesel, petrol, LP gas, mains power		Battery	Battery
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		Seated	Seated
	1.5	Towed load capacity	Q (t)	25 [1]	25 [1]
	1.7	Rated drawbar pull	F (N)	5000 [1]	5000 [1]
	1.9	Wheelbase	y (mm)	1465	1900
Weight	2.1	Service weight	kg	3800	4800
	2.2	Axle load with load, front/rear	kg	2000/2100	2600/2500
	2.3	Axle load without load, front/rear	kg	1900/1900	2500/2300
Wheels and tyres	3.1	Tyres, front/rear (SE = CS superelastic, P = pneumatic)		P/P [2]	P/P [2]
	3.2	Tyre size, front		6.00 R9	6.00 R9
	3.3	Tyre size, rear		7.00 R12	7.00 R12
	3.5	Wheels, number front/rear (x = driven)		2/2x	2/2x
	3.6	Track width, front	b10 (mm)	1080	1080
	3.7	Track width, rear	b11 (mm)	1020	1020
Dimensions	4.7	Height of overhead guard (cabin)	h6 (mm)	1820	1820
	4.8	Height of seat/stand-on platform	h7 (mm)	745	745
	4.12	Towing coupling height	h10 (mm)	240, 295, 350, 405	240, 295, 350, 405
	4.13	PLatform height, without load	h11 (mm)	1000	1000
	4.16	Loading platform, length	l3 (mm)	1520	1955
	4.17	Rear overhang	l5 (mm)	615	615
	4.18	Loading platform, width	b9 (mm)	1170 (1120 at rear)	1170 (1120 at rear)
	4.19	Overall length	l1 (mm)	3045	3480
	4.21	Overall width	b1 (mm)	1300	1300
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	150	150
	4.35	Turning radius	Wa (mm)	2830	3280
	4.36	Minimum pivoting point distance	b13 (mm)	935	1095
Performance	5.1	Travel speed, with/without rated drawbar pull	km/h	11/25	11/25
	5.5	Drawbar pull at 60 minute rating	N	5000	5000
	5.6	Maximum drawbar pull (on level ground)	N	16000 [1]	16000 [1]
	5.7	Climbing ability with/without load, 30 minute rating	%	See graph	See graph
	5.8	Maximum climbing ability, with/without load, 5 minute rating	%	See graph	See graph
	5.10	Service brake		Hydraulic/electric	Hydraulic/electric
Drive	6.1	Drive motor, 60 minute rating	kW	2x10	2x10
	6.3	Battery according to DIN 43531/35/36 A, B, C, no		DIN 43536A	DIN 43536A
	6.4	Battery voltage/rated capacity (5h)	V/Ah	80/560	80/840
	6.5	Battery weight (± 0,5 %)	kg	1558	2178
	6.6	Power consumption according to VDI cycle	kWh/h	[3]	[3]
Other	8.1	Type of drive control		AC-microprocessor	AC-microprocessor
	8.4	Noise level at operator's ear	dB (A)	[3]	[3]
	8.5	Tow coupling, design/type, DIN		[3]	[3]

[1] Based on level, dry surface with rolling resistance of 200 N/t.
Refer to graph opposite for specific operating conditions and when the application involves inclines or ramps.
[2] Contoured solid (superelastic) tyres are available.
[3] Refer to manufacturer for figures.

Equipment

Standard equipment

General

Four wheel configuration
Pneumatic tyres
Tractor without cab
Left or right hand drive steering position
Adjustable steering column
Comprehensive integrated display
Single pedal accelerator and direction lever
Full suspension PVC driver's seat
Non-suspension PVC passenger seat
Hydrostatic power steering
Front and rear screen wipers/washers (with optional cab version)
Two exterior mirrors
Interior mirror
Interior light
Remote inching control
Automatic single position, rear towing coupling
Trailer lighting socket
Dual circuit hydraulic disc brakes on all four wheels
Integrated in drive axle with no differential required
Superb traction with anti-slip control
Reduced power to inner wheel during cornering
High-torque flexibility and performance
Standard colour scheme – vermilion and charcoal grey

Electronics

80 V circuit
2 x 10 kW maintenance free AC drive motors
Advanced Linde AC digital controller
Precise control of speed and acceleration
Highly efficient energy saving system
Programmable performance parameters

Batteries and chargers

P 250 SWB – 80 V, 400 to 560 Ah to IEC
P 250 LWB – 80 V, 600 to 840 Ah to IEC
Easy vertical lift out battery change
A range of chargers is available to suit application and main supply requirements

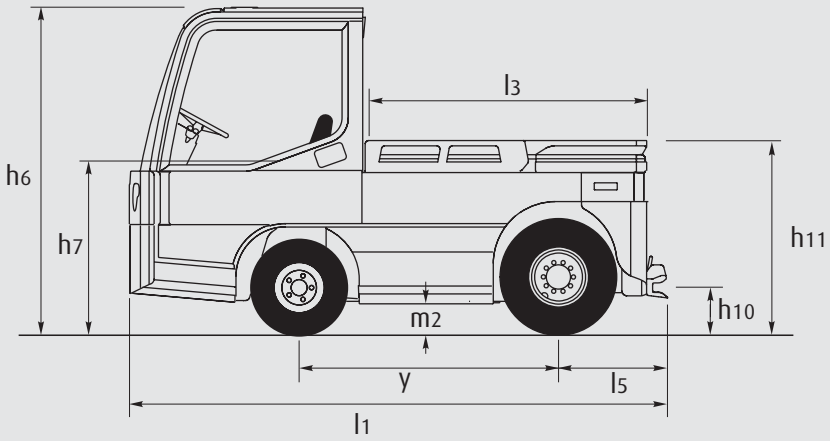
Safety

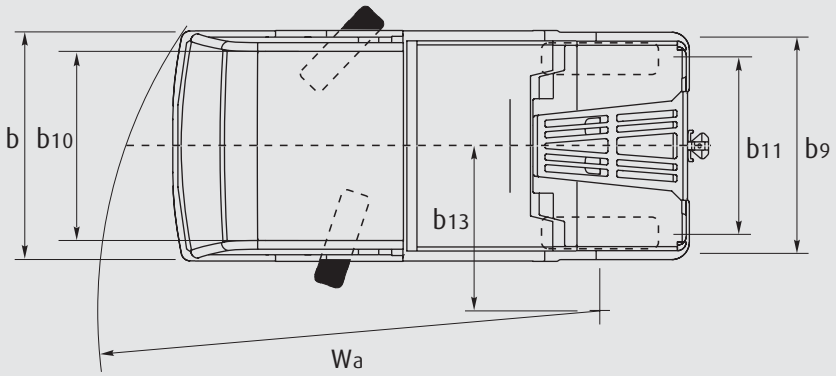
Three independent braking systems
Hydraulic disc brakes (front) external disc brakes (rear)
Regenerative electric braking as accelerator pedal is released
Superb regenerative braking control on gradients
Electric push-button parking brake
Keyswitch
Emergency circuit isolator
Fail-to-safe circuitry
Traction isolated by seatswitch and/or parking brake
Electrical overload protection
Comprehensive warning lights
Electric horn
Full road lighting
Excellent all-round visibility
Driver's cab with safety glass

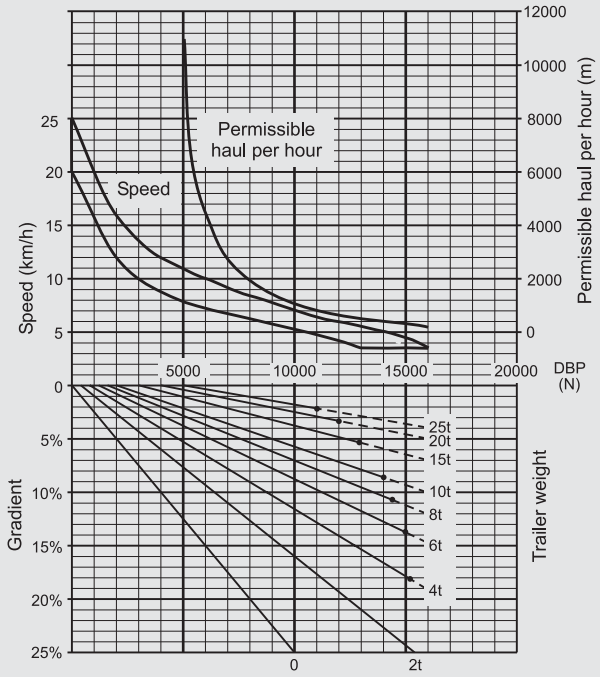
Optional equipment

Cab with flexible roll up sides
Cab without sides
Cab with sliding or hinged doors
Rear lights mounted high at rear of cab
Flashing or rotating beacon on cab
Reverse warning beeper
Contoured solid (superelastic) tyres

Towing couplings:
– Automatic single position, front and/or rear
– Automatic single position, remote, rear
– Multi-position, front and/or rear
240 mm rear coupling extension
Electric or diesel heater and demister
Fabric covered seats
Heated seats
Full suspension passenger seat
Alternative colour schemes







Load/gradient combinaisons shown by full line can be restarted from stationary on the gradient.

The permissible haul per hour is the total distance travelled, including the return journey and any downhill gradients.

It is recommended that braked trailers are used for trailer loads exceeding 2.5 tonne and for all trailer loads where a gradient is involved.


Linde
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Features

Chassis
→ Long and short wheelbase versions
→ Robot welded heavy guage steel plate
→ Maximum torsional resistance and rigidity
→ High impact protection for operator and components
→ Low profile chassis for all-round visibility

Ergonomics
→ Ergonomic automotive pedal and control layout
→ Spacious leg and headroom
→ Storage space for documents, pens and beverage holder
→ Excellent all-round visibility
→ Clear view to rear tow coupling

Operator's compartment
→ Low step access to spacious cabin
→ Sliding or hinged cabin doors
→ Fully adjustable comfort-class operator's seat
→ Cabin isolated from chassis by hydraulic dampers
→ Multi-function instrument display

Steering
→ Hydrostatic power steering
→ Effortless manoeuvrability
→ Adjustable steering column
→ Large lock-to-lock angle

Braking
→ Three independent braking systems
→ Electric push-button parking brake
→ Hydraulic disc brakes (front) external disc brakes (rear)
→ Regenerative electric braking as accelerator pedal is released
→ Superb regenerative braking control on gradients

Tow coupling
→ Automatic rear towing coupling as standard
→ Optional remote automatic and multi-position couplings
→ Front and rear towing coupling options
→ Stand-off inching control as standard

Drive units
→ Two 10 kW maintenance-free AC drive motors
→ Integrated in drive axle with no differential required
→ Superb traction with anti-slip control
→ Reduced power to inner wheel during cornering
→ High-torque flexibility and performance

Serviceability
→ Hinged rear platform cover
→ Easy access for maintenance and battery
→ CAN bus diagnostic facility for reduced service intervals
→ Multi-function instrument display assists scheduled maintenance planning
→ Maintenance-free AC drive technology

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