

# Safety

Safety is assured by automatic speed reduction when cornering, automatic braking on release of the traction control and excellent visibility through the wide mast. Electromagnetic braking is actuated by the emergency stop button. The rounded, smooth shape of the chassis and tiller head, reduces all risk of pinching or snagging.

### Performance

A key strength of the range is productivity. Linde OptiLift® control provides genuinely proportional lifting/lowering and the powerful 3kW AC motor gives a top speed of 6 km/h laden or unladen. The compact chassis ensures that this high performance is combined with exceptional manoeuvrability.

# Comfort

Electric power steering with adjustable steering torque provides effortless control and efficiency. Positive steering feedback results in safe, assured operation. Travel speed is automatically reduced as the steering angle increases for optimum stability. Generous storage compartments for work equipment and tools eases the operator's tasks.

### Reliability

Linde Material Handling

Linde has designed these two pedestrian stackers to meet the needs of its customers by providing the optimum solution for individual applications. These rugged trucks incorporate tried and tested components to deliver consistent reliability and faster, safer load handling over an extended working life.

#### Service

The digital multifunction instrument display ensures the operator is always well informed. CAN bus connectivity enables all truck data to be quickly interrogated by the service technician via his laptop. Easy accessibility of all components and maintenancefree AC technology also play an important role in maximising truck uptime.

# Features

#### Different drive systems D12 HP (5-wheel configuration):

- $\rightarrow$  High performance (HP) version
- $\rightarrow$  Superb mix of traction and stability
- $\rightarrow$  Active castor wheels
- $\rightarrow$  Side battery change
- $\rightarrow~$  Mast heights up to 1,924 mm lift (S/D)



#### Workstation

- → Digital, multifunction, backlit instrument display informs the operator of key truck information
- → Truck access by key switch or by PIN code (no-cost option)
- → Conveniently located and generous storage compartments for shrink-wrap, work gloves, pens/markers, etc.



#### AC motor & Energy

- → Powerful, high torque drive motor, 3kW at 100% performance
- → Moisture and dust-proof, maintenance-free motor
- $\rightarrow$  No rollback on gradient
- $\rightarrow$  6km/h with or without load
- → Wide range of batteries from 375 Ah (3PzS) to 500 Ah (4PzS)
- $\rightarrow$  Ergonomic battery exchange system

#### OptiLift control

- → Intuitive control of the tiller and all lifting functions
- → The proportional OptiLift control provides quiet, smooth and precise operation
- → Compact, high performance lift unit conserves energy to maximise shift life



#### Power steering

- $\rightarrow$  Effortless, electric power steering
- → Positive steering feedback for assured manoeuvring.
- $\rightarrow\,$  Automatic speed reduction when cornering
- $\rightarrow\,$  Steering effort varies according to the turning angle

#### Different drive systems D12, D14 (4-wheel configuration):

- → Excellent stability
- $\rightarrow$  Vertical battery change as standard, optional side battery change
- → Mast height range up to 4,266 mm lift (T)

#### CAN bus connectivity

- → Intelligent electronic management of all components for rapid and easy diagnosis
- → All truck parameters can be configured by the service technician to match performance to individual applications



#### Brake

- $\rightarrow$  Automatic electric braking
- $\rightarrow$  Automatic braking by releasing the traction butterfly
- $\rightarrow$  Electromagnetic emergency brake



Linde Material Handling

# Technical Data according to VDI 2198

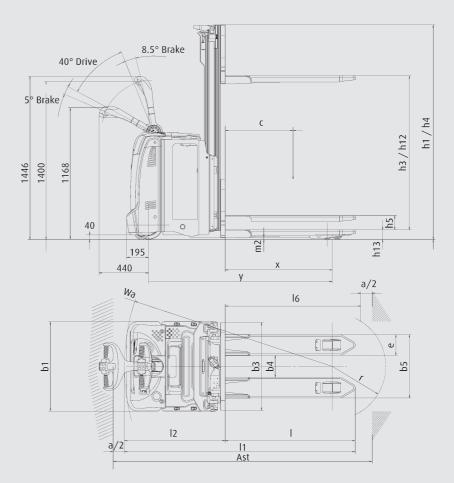
	1.1	Manufacturer		LINDE	LINDE	LINDE
	1.1	Manufacturer's type designition		D12 HP	D12	D14
	1.2a	Series		133-00	133-00	133-00
stics	1.3	Power unit		Battery	Battery	Battery
teris	1.4	Operation		Pedestrian	Pedestrian	Pedestrian
Characteristics	1.5	Load capacity/Load	Q (t)	1.2 / 2.0 <sup>1)</sup>	1.2 / 2.0 1)	1.4 / 2.0 <sup>1)</sup>
Ë,	1.6	Load centre distance	c (mm)	600	600	600
	1.8	Axle centre to fork face	x (mm)	948 (833) <sup>2)</sup>	948 (833) <sup>2)</sup>	948 (833) <sup>2)</sup>
	1.9	Wheelbase	y (mm)	1625 (1510) <sup>2) 3)</sup>	1625 (1510) <sup>2) 3)</sup>	1625 (1510) <sup>2) 3)</sup>
	2.1	Service weight	(kg)	1355 4)	13454)	1340 4)
Weights	2.1		(Kg)	1312 / 1243 (1364 /	1222 / 1323 (1274 /	1260 / 1480 (1269 /
	2.2	Axle load with load, front/rear	(kg)	1991) <sup>4) 2)</sup>	2071) 4) 2)	2071) 4) 2)
	2.3	Axle load without load, front/rear	(kg)	1055 / 3004)	965 / 380 4)	960 / 380 4)
	3.1	Tyres rubber, SE, pneumatic, polyurethane		V+P/P <sup>5)6)</sup>	V+P/P <sup>5)6)</sup>	V+P/P <sup>5)6)</sup>
Wheels/Tyres	3.2	Tyre size, front		Ø 254 x 102	Ø 254 x 102	Ø 254 x 102
	3.3	Tyre size, rear		Ø 85 x 85	Ø 85 x 85	Ø 85 x 85
els/	3.4	Auxiliary wheels (dimensions)		Ø 125 x 60	2x Ø 140 x 50	2x Ø140 x 50
/het	3.5	Wheels, number front/rear (x = driven)		1x + 2 / 2	1x + 1 / 2	1x + 1 / 2
>	3.6	Track width, front	b10 (mm)	544	470	470
	3.7	Track width, rear	b11 (mm)	380	380	380
	4.2	Height of mast, lowered	h1 (mm)	1315	1490	1490
	4.3	Free lift	h2 (mm)	150	150	150
	4.4	Lift	h3 (mm)	1574	1924	1924
	4.5	Height of mast, extended	h4 (mm)	2110	2460	2460
	4.6	Initial lift	h5 (mm)	125	125	125
	4.9	Height of tiller arm in operating position, min/ max	h14 (mm)	1350 (1140)	1287 (1103)	1287 (1103)
	4.15	Height, lowered	h13 (mm)	86	86	86
S	4.19	Overall length	l1 (mm)	2135 3)	21353)	2135 3)
Dimensions	4.20	Length to fork face	l2 (mm)	985 3)	985 3)	985 3)
nen	4.21	Overall width	b1/b2 (mm)	790	790	790
Dir	4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	55 x 180 x 1150 <sup>7)</sup>	55 x 180 x 1150 <sup>7)</sup>	55 x 180 x 1150 <sup>7)</sup>
	4.24	Width of fork carriage	b3 (mm)	780	780	780
	4.25	Fork spread	b5 (mm)	560	560	560
	4.26	Distance between wheel arms/loading sur-	b4 (mm)	230	230	230
	4.22	faces				
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	20 2762 (2783) <sup>3) 2) 8)</sup>	20 2762 (2783) <sup>3) 2) 8)</sup>	20 2762 (2783) <sup>3) 2) 8)</sup>
	4.34.1 4.34.2	Aisle width for pallets $1000 \times 1200$ crossways	Ast (mm)	2633 (2703) <sup>3) 2) 8)</sup>	2633 (2703) 3) 2) 8)	2633 (2703) <sup>3) 2) 8)</sup>
	4.34.2	Aisle width with pallet 800 x 1200 along forks Turning radius	Ast (mm)	1960 3)	1960 3)	1960 3)
	5.1	Travel speed, with/without load	<u>Wa (mm)</u> (km/h)	6 / 6 %	6 / 6 <sup>9</sup>	6 / 6 %
Performance	5.1	naver speed, with/ without load	(KIII/II)	0.11 / 0.2 (0.06 / 0.08)	0.11 / 0.22 (0.06 /	0.12 / 0.23 (0.06 /
	5.2	Lifting speed, with/without load	(m/s)	0.11 / 0.2 (0.00 / 0.08) 2)	0.06) <sup>2)</sup>	0.06) <sup>2)</sup>
	5.3	Lowering speed, with/without load	(m/s)	0.3 / 0.3 (0.07 / 0.07) <sup>2)</sup>	0.3 / 0.3 (0.07 / 0.07) <sup>2)</sup>	0.35 / 0.385 (0.07 /
	5.8	Maximum climbing ability, with/without load	(%)	16.0 / 18.0	15.0 / 18.0	0.07) <sup>2)</sup> 14.0 / 18.0
	5.9	Acceleration time, with/without load	(5)	1.5 / 1.4	1.5 / 1.4	1.6 / 1.4
	5.10	Service brake	(-/	Electro-magnetic	Electro-magnetic	Electro-magnetic
Drive	6.1	Drive motor rating \$2.60 min	(kW)	3	3	3
	6.2	Lift motor rating at S3 15%	(kW)	1.7	1.7	2
	6.3	Battery according to DIN 43531/35/36		 NO	 NO	по
		A,B,C,no	(1) ((.1)			
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	24 / 345/375	24 / 345/375	24 / 345/375
	6.5	Battery weight (± 5%)	(kg)	295	295	295
	6.6	Power consumption according to VDI cycle	(kWh/h)	0.97	0.97	0.97
		T (): 1		LAC	LAC	LAC
	8.1	Type of drive unit Sound pressure level LpAZ (at the driver's seat)	(dB(A))	< 70	< 70	< 70

# Standard Equipment/Optional Equipment

# Standard Equipment

# **Optional Equipment**

Linde OptiLift®: proportional control on the tiller head	Load bac
Power assisted steering with variable steering resistance	Low trac
Positive steering (drive wheel) feedback	Soft land
Automatic and adjustable speed reduction when cornering	Support
3kW AC motor (maintenance free)	/D14)
Electromagnetic emergency brake	Drive wh
Key switch or Log in PIN code	wet grip
Dedicated work station with storage compartments	Load wh
CAN bus technology	greaseat
Multifunction backlit instrument display: Safety alarm, mainte-	Side batt
nance check indicator, battery charge level, hour meter	Mobile a
Cushion rubber drive wheel	Linde Co
Polyurethane single load wheels	ac:acces
Width over forks of 560 or 680 mm	dt:crash
Vertical battery change 3 or 4 PzS	Cold stor
Side battery change 3 or 4 PzS	
Mast protection: polycarbonate or mesh screen	Other op
Horn	



load max. 2000 kg. 2) Figures in parenthesis with initial lift 3) ± 0 mm = 3 PzS lateral; + 100 mm = 3 PzS vertical and 4PzS lateral;

+ 150 mm = 4 PZS vertical; + 225 mm = 4 PZS vertical
4) Figures with battery, see line 6.4/6.5.
5) Drive Wheel Option: rubber non marking, Polyurethane and wet grip

7) Load arms 60x125x1119 8) Including a 200 mm (min.) operating aisle clearance. 9) (± 5%)

- ad backrest (h=1,000mm)
- w traction speed when initial lift lowered option
- t landing of forks
- oport for data terminal or barcode reader (Pack n°2 on D12
- ve wheels: polyurethane, cushion rubber non-marking or grip
- ad wheels: tandem polyurethane or tandem polyurethane easeable
- e battery change 3 or 4 PzS (D12 / D14)
- bile and fixed battery stands for side battery change de Connected Solutions:
- access control (PIN and RFID Dual), an:usage analysis,
- crash detection
- d store protection to –35°C
- ner options available on request.