



Linde Material Handling



FOLDABLE PLATFORM DOUBLE STACKER D10 AP

CAPACITY 1000 KG | SERIES 1163

Safety

The D10 AP platform version is perfectly designed to protect the operator during the work shift. Automatic speed reduction when cornering, automatic braking on releasing the traction control and excellent visibility through the wide mast, all provide assured safety. Electro-hydraulic braking is actuated by the dead man platform or by the emergency stop button and is proportional to the load carried.

Performance

The compact and powerful 2.3kW AC drive unit enables precise maneuvering, with speeds up to 10 km/h. With capacities up to 2000 kg, the D10 AP is designed to transfer two double stacked pallets simultaneously. When used as a double stacker the speed can be further optimized thanks to the new Speed Management option.

Comfort

The fully suspended operator compartment keeps the driver concentrated and maintains high efficiency levels throughout the work shift. All controls on the ergonomic tiller head can be easily

operated by either hand. Tasks are made easier thanks to the generous storage compartments for work equipment, such as shrink wrap, which eases the operator's tasks.

Reliability

These ruggedly constructed trucks incorporating tried and tested technology (lifting functions etc.) and components, deliver consistent reliability. The battery cover, as well as the robust chassis, are remarkably solid and resistant to damage. The sturdy mast and durable fork carriage are made out of high-grade rolled steel to ensure easy and safe load handling.

Service

A maintenance-free AC motor reduces service costs. Operating parameters can be individually adjusted to the operator's needs via the CAN-bus system. The service engineer has fast, easy access, not only to truck data, via the CAN-bus system, but also to all main internal components.



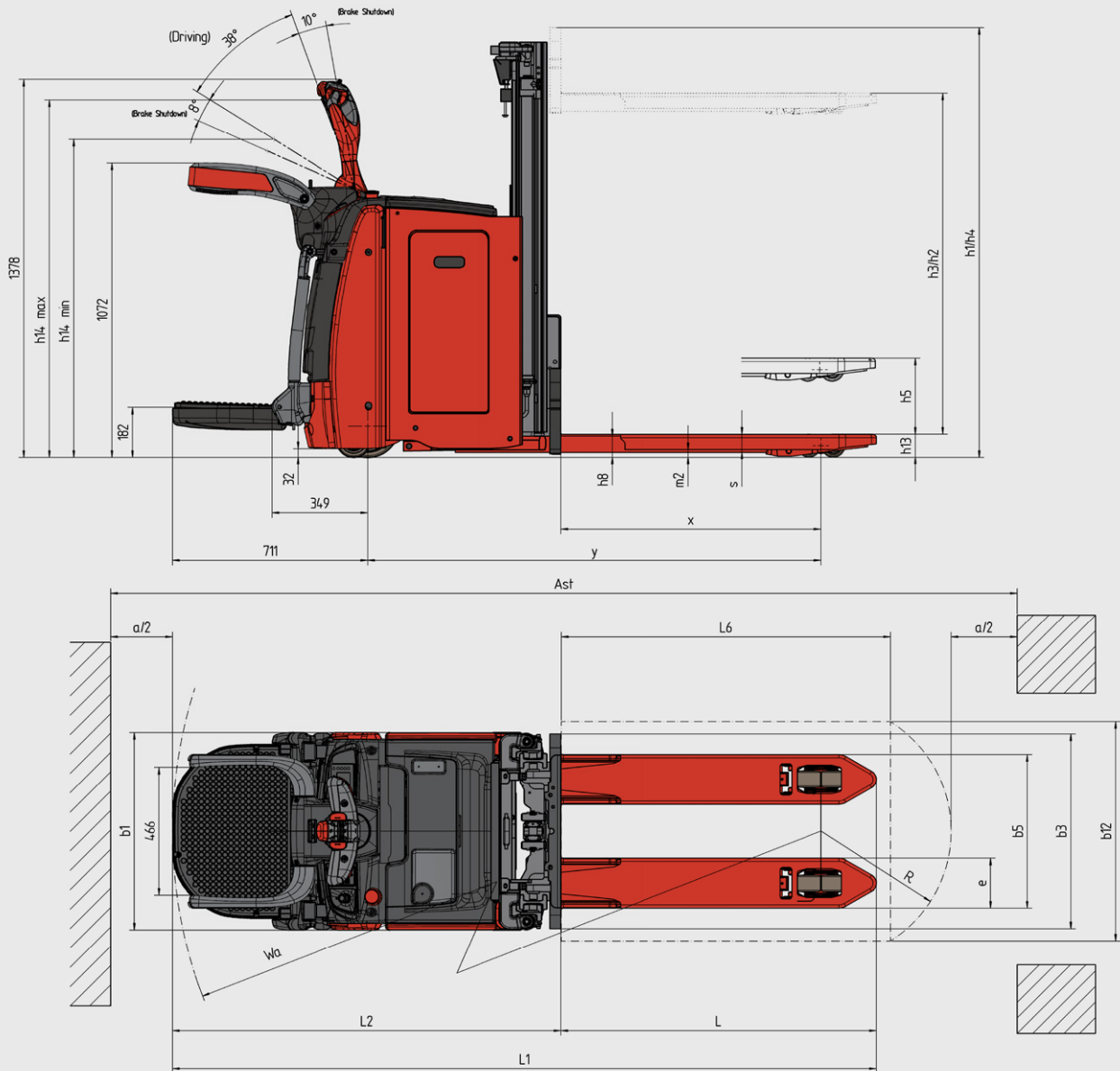
Here you can find more content via your smartphone: [Linde Augmented Reality App](#)



TECHNICAL DATA

ACCORDING TO VDI 2198

| | | | | |
|------------------|--|---|----------------|--------------------------|
| Characteristics | 1.1 | Manufacturer | | LINDE |
| | 1.2 | Model design | | D10 AP |
| | 1.3 | Power unit | | Battery |
| | 1.4 | Operation | | Standing |
| | 1.5 | Load capacity/load | Q (t) | 1.0 |
| | 1.6 | Load centre distance | c (mm) | 600 |
| | 1.8 | Axle centre to fork face | x (mm) | 950 |
| | 1.9 | Wheelbase | y (mm) | 1653 |
| | Weight | 2.1 | Service weight | (kg) |
| 2.2 | | Axle load with load, front/rear | (kg) | 1317/2035 |
| 2.3 | | Axle load without load, front/rear | (kg) | 997/342 |
| Wheels and types | 3.1 | Tyres rubber, SE, pneumatic, polyurethane | | R + P/P |
| | 3.2 | Tyre size, front | | 230 x 90 |
| | 3.3 | Tyre size, rear | | 85 x 85 (bogies 85 x 60) |
| | 3.4 | Auxiliary wheels (dimensions) | | 2 x 125 x 60 |
| | 3.5 | Wheels, number front/rear (x = driven) | | 1x+2/2 (1x+2/4) |
| | 3.6 | Track width, front | b_{10} (mm) | 502 |
| | 3.7 | Track width, rear | b_{11} (mm) | 380 |
| Dimensions | 4.2 | Height of mast, lowered | h_1 (mm) | 1465 (2024S) |
| | 4.3 | Free lift | h_2 (mm) | 150 (2024S) |
| | 4.4 | Lift | h_3 (mm) | 2024 (2024S) |
| | 4.5 | Height of mast, extended | h_4 (mm) | 2544 (2024S) |
| | 4.6 | Initial lift | h_5 (mm) | 125 |
| | 4.9 | Height of tiller arm in operating position, min/max | h_{14} (mm) | 1160/1305 |
| | 4.15 | Height, lowered | h_{13} (mm) | 86 |
| | 4.19 | Overall length | l_1 (mm) | 2570 |
| | 4.20 | Length to fork face | l_2 (mm) | 1420 |
| | 4.21 | Overall width | b_1/b_2 (mm) | 720 |
| | 4.22 | Fork dimensions DIN ISO 2331 | s/e/l (mm) | 50 x 180 x 1150 |
| | 4.24 | Width of fork carriage | b_3 (mm) | 710 |
| | 4.25 | Fork spread | b_5 (mm) | 540/560 |
| | 4.26 | Distance between wheel arms/loading surfaces | b_4 (mm) | 210/230 |
| | 4.32 | Ground clearance, centre of wheelbase | m_2 (mm) | 20 |
| | 4.34.1 | Aisle width for pallets 1000 x 1200 crossways | A_{31} (mm) | 3030 |
| | 4.34.2 | Aisle width with pallet 800 x 1200 along forks | A_{31} (mm) | 3140 |
| 4.35 | Turning radius | W_9 (mm) | 2340 | |
| Performance | 5.1 | Travel speed, with/without load | (km/h) | 10.0/10.0 |
| | 5.2 | Lifting speed, with/without load | (m/s) | 0.050/0.061 |
| | 5.2 | Main lifting speed | (m/s) | 0.14/0.22 |
| | 5.3 | Initial lowering speed | (m/s) | 0.102/0.082 |
| | 5.3 | Main lowering speed | (m/s) | 0.488/0.197 |
| | 5.8 | Ramp maximum (0 kg, 1000 kg, 2000 kg) | % | 20/15/12 |
| | 5.9 | Acceleration time, with/without load | (s) | 6.7/5.4 |
| | 5.10 | Service brake | | Electro-magnetic |
| Drive | 6.1 | Drive motor rating S2 60 min | (kW) | 2.3 |
| | 6.2 | Lift motor rating at S3 15% | (kW) | 2.2 |
| | 6.3 | Battery according to DIN 43531/35/36 A, B, C, no | | 3PZs SL |
| | 6.4 | Battery voltage/rated capacity (5h) | (V)/(Ah) | 24/375 |
| | 6.5 | Battery weight ($\pm 5\%$) | (kg) | 290 |
| | 6.6 | Power consumption according to VDI cycle | (kWh/h) | 0.821 |
| 8.1 | Type of drive unit | | LAC | |
| 10.7 | Sound pressure level LpAZ (at the driver's seat) | (dB(A)) | 65 | |



MAST TABLES

| Mast type | 1574S | 1724S | 2024S | 2424S | 1574D | 1724D | 2024D | 2424D | 2136T |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| h_1 | 1240 | 1315 | 1465 | 1665 | 1240 | 1315 | 1465 | 1665 | 1165 |
| h_{1r} | 1315 | 1390 | 1540 | 1740 | / | / | / | / | / |
| h_2 | 150 | 150 | 150 | 150 | 720 | 795 | 945 | 1145 | 645 |
| h_3 | 1574 | 1724 | 2024 | 2424 | 1574 | 1724 | 2024 | 2424 | 2136 |
| h_4 | 2094 | 2244 | 2544 | 2944 | 2094 | 2244 | 2544 | 2944 | 2662 |

Other masts on request. S = Standard, D = Duplex, T = Triplex

STANDARD EQUIPMENT / OPTIONAL EQUIPMENT

STANDARD EQUIPMENT

| |
|--|
| 720mm chassis width smaller than a pallet |
| Fully suspended operator compartment |
| Foldable stand-on platform with side guards |
| Linde OptiLift®: proportional control on the tiller |
| Power assisted steering with variable steering resistance |
| Automatic speed reduction when cornering |
| 2.3kW AC motor (maintenance-free) |
| Vertical 3PzS battery compartment |
| Electromagnetic emergency brake acting proportionally to the load weight |
| Key switch or Log in PIN code (no extra) |
| CAN-bus technology |
| Multifunction coloured display: hour meter, maintenance indication, battery discharge indicator and internal fault code indication |
| Polyurethane drive wheel |
| Polyurethane single load wheels |
| Mast protection: polycarbonate or mesh wired (no extra) |
| Protection: -10° C |

OPTIONAL EQUIPMENT

| |
|--|
| Hydraulic castor wheels |
| Drive wheels: cushion, cushion with tread, non-marking or wet grip |
| Load wheels: tandem polyurethane or single/tandem polyurethane greasable load wheels |
| Load backrest (h = 1000mm) |
| Alternative fork dimensions |
| Low speed option when initial lift is lowered |
| Lift end stop sensor |
| Soft landing of forks |
| Accessory support |
| Support data terminal incl. power supply cable 24V |
| Support clipboard DIN A4 |
| Support for scanner |
| Built-in charger |
| Lateral 3PzS battery compartment |
| Lateral 4PzS battery compartment |
| Battery stand – fixed and mobile |
| Cold store protection: -35° C |
| Working lamp LED front |
| Other options available on request |

Linde Connected Solutions:

ac: access control (PIN or RFID Dual),
an: usage analysis and dt: crash detection

Data transfer online

Data transfer WIFI

Bluetooth USB Stick

Li-ION technology:

3PzS compartment with 4.5kWh - 9kWh (205Ah - 410Ah)

Li-ION charger:

24V-Charger v255: 4.5kWh (full charging time 1h 30min) -
9.0kWh (2h 40min)



FEATURES

Platform

- Fully suspended operator compartment
- Platform and handle bar are decoupled from the chassis
- Reduced vibrations for the legs and for the upper body
- Soft, slip-proof rubber padding
- Entire platform surface acts as an operator detection switch
- Foldable side guards



Lifting system

- OptiLift® mast controls provides accurate, fully proportional lifting, as well as, smooth, quiet operation
- Soft landing of forks protects load when lowering
- Initial lift independent of main lift
- Max. lift height up to 2424mm
- Max. load capacity in double-stacking use: 1000 kg on forks and 1000 kg on load arms

Speed management

- Increased performance when used as double stacker
- Speed optimization of the truck is linked to the weight of the load on the free lift

Handling

- 720 mm chassis width narrower than a pallet
- Compact and robust chassis for easy handling in narrow spaces
- A creep speed button ensures high maneuverability in confined areas when operating with the tiller in an upright position

Braking

- Highly efficient mechanical brake when tiller is fully raised or lowered
- Automatic electric braking on releasing the butterfly control or reversing direction
- Truck slows down prior to stopping - remaining under complete control at all times
- No roll-back when starting on a slope



Workstation

- All controls are ergonomically integrated in the tiller head
- Multifunctional instrument display with easy ergonomic menu
- Truck access control by PIN code or ignition key
- Storage compartment for work gloves, writing utensils etc.
- Emergency isolator

Comprehensive energy solutions

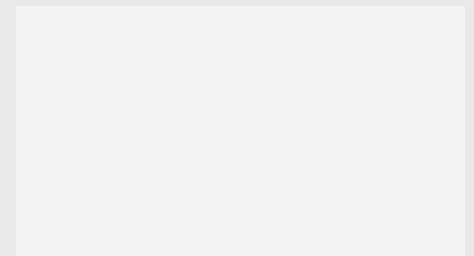
- 24V batteries: capacities from 345Ah (3PzS) to 500 Ah (4PzS)
- Li-ION batteries with 4.5KWh (205Ah) and 9.0 kWh (410 Ah)
- Optional built-in charger available
- Optional lateral change, including rollers inside the battery compartment and a lever to aid battery change

AC Motor

- Compact, efficient and maintenance-free 2.3kW AC motor
- Innovative castor wheel design offers maximum traction and stability for demanding application, such as, loading/unloading

Subject to modification in the interest of progress. Illustrations and technical details could include options and not binding for actual constructions. All dimensions subject to usual tolerances.

Presented by:



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