

Standard equipment/optional equipment

Standard equipment

Maximum total weight of trailers with load for one train: 8,000 kg (depends on towing capacity of tractor)

CAN bus controller

Option of four different steering systems:

Electrical 4-wheel steering/mechanical 4-wheel steering /mechanical 2-wheel steering/2 swiveling plus 2 fixed wheels (4-wheel steering for highest directional driving stability)

Robust, durable load-frame construction with release guard and stable front and rear axle

Warp-resistant lifting system powered by quiet electrical spindles

Exchangeable trolley lifting profile at front and rear side of the trolley compartment

2 or 4 lifting spindles depending on load capacity

Lifting height 30 – 100 mm, adjustable

Lifting speed 18mm/s

Load capacity: from 600 kg to 2,000 kg

Holding capacity for various load/trolley dimensions:

400x600 up to 1200x1600 mm

Lifting function operated from panel at tow tractor

and additional lift operation at trailer via footswitch,

Footswitch with immediate-stop function

Automatic tractor drive lock when lifting in lowered position

Low energy consumption

Trailers designed for a small turning radius

Optional: without lifting system, trolleys remain on own wheels

C frame configurable for trolley opening left or right side

Bridge frame for trolley opening on both sides

Backlash-free ball type coupling system

Linde red/anthracite paintwork

Requires adaptation of the tractor (electrical connector, ball type coupling, operating panel)

Optional equipment

Heavy duty version with SE tires 250 x85mm and lifting height 30 – 150mm, adjustable

Adaptable to customer-specific trolley

Mechanical trolley locking, foot-operated

Load handling of other load dimensions on request

Foot pedal for locking dolly

Trolley with fixed foot brake on the long side

Trolley with handgrip

Trolley with board and anti-slip mat

Trolley with fixed superstructure for small load carrier containers

Trolley wheels with Vulkolan® covering for delicate floors

Alternative paintwork

Dollies in various dimensions and versions

Weather protection

1 or 2 sets of movable forks

ESD conductivity (ESD wheels)

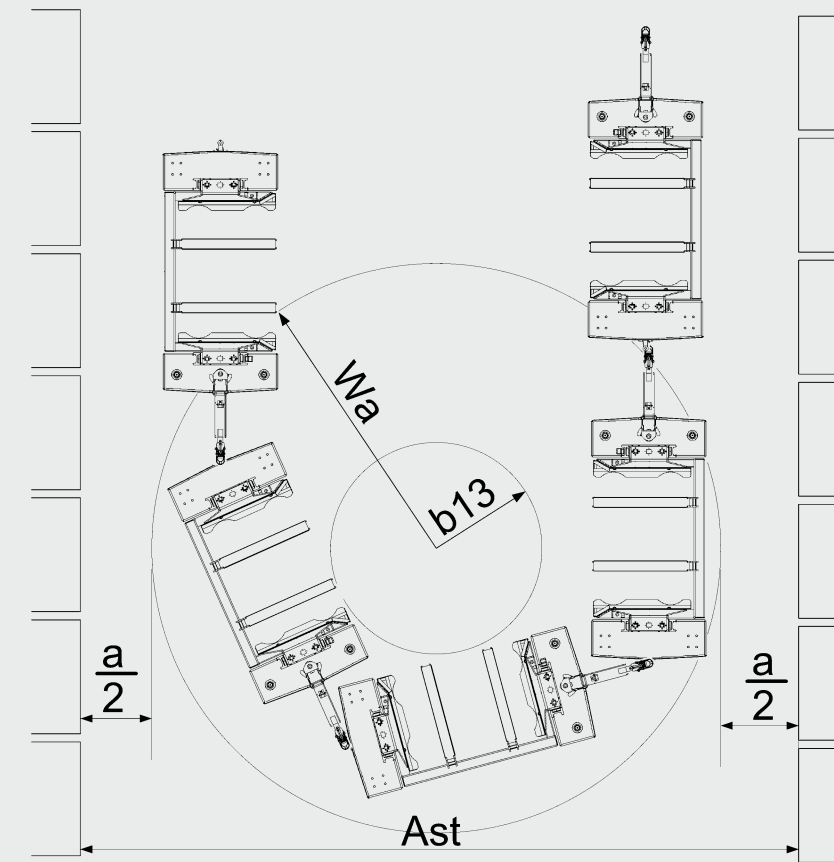
Highway code-compliant lighting

Stainless steel version for foodstuffs field

Wet grip drive wheel for tow tractor (P50 C, recommended for towed load of 3600 kg and above)

Tractor P250: 25000 kg towed load

Additional optional equipment on request



Safety

The innovative Linde Logistic Train is an ideal solution for the tightly scheduled material flow in modern production plants. Raising varying loads on pallet undercarriages (=trolleys) above the floor creates a load-protecting, low-noise and low-wear load handling process. An integral drive-lock prevents the tractor moving with lowered lifting units. Load lifting, for safety reasons, can also be controlled direct at the trailer

Performance

Goods are safely transported due to the sturdy frame construction. The Linde Logistic Train can transport up to four trailers safely at the same time, greatly improving goods handling capacity. The optional 4-wheel steering and the special trailer chassis design ensure outstanding maneuverability and high directional stability. The electrical lifting function performs up to 2.0 t.

Comfort

The Logistic Train was designed to offer the best possible ergonomics for the operator. Foot-switch in the trailer for hands-free operation, pre-lowering from the tractor combined with the smooth-running trolleys allow for comfortable follow up on the internal deliveries. The wheel suspension, the electrically driven lifting spindles and the backlash-free coupling provide for quiet operation. The bridge type trailer allows a simple roll-in and out from both sides.



Reliability

Solid framework surrounds and intelligent construction, incorporating release guard and the low-maintenance electrical lift design offer excellent levels of reliability. A high-strength trailer tiller, fitted with ball type coupling as well as smooth-running wheels with integrated suspension enable long-term use. No lurching, even with high load heights.

Serviceability

Sturdy and service friendly, the trailers can simply be uncoupled for exchange. The unique construction consisting of two axles and the drop-in-position load-frame are very easy to maintain. The sealed electrical lifting spindles are service-free and easy to replace. Each trailer has its own CAN bus controller that memorizes operations and failures. The tiller with its ball type coupling is almost wear-free in use.

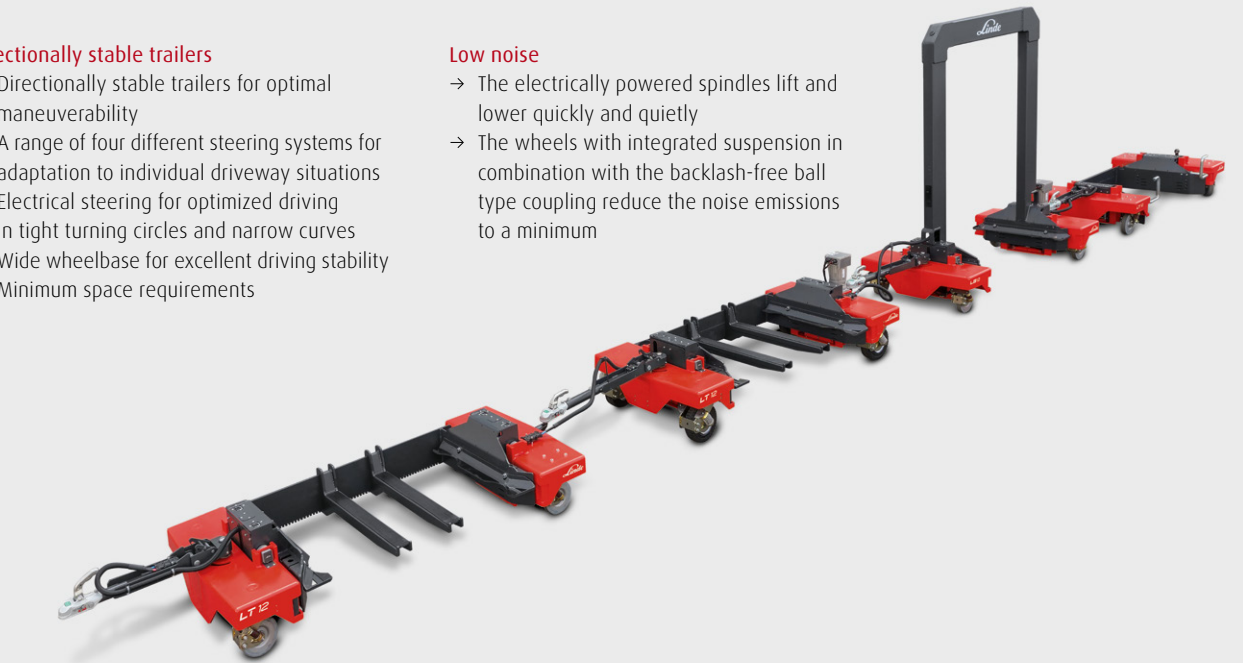
Product information

Directionally stable trailers

- Directionally stable trailers for optimal maneuverability
- A range of four different steering systems for adaptation to individual driveway situations
- Electrical steering for optimized driving in tight turning circles and narrow curves
- Wide wheelbase for excellent driving stability
- Minimum space requirements

Low noise

- The electrically powered spindles lift and lower quickly and quietly
- The wheels with integrated suspension in combination with the backlash-free ball type coupling reduce the noise emissions to a minimum



Serviceability

- Easily maintained basic construction
- CAN bus controller with data memory
- Interchangeable rollers and axles are easily accessible for servicing

Energy management

- Energy-optimized lifting system
- Reduced rolling resistance due to optimal roller pivot bearings

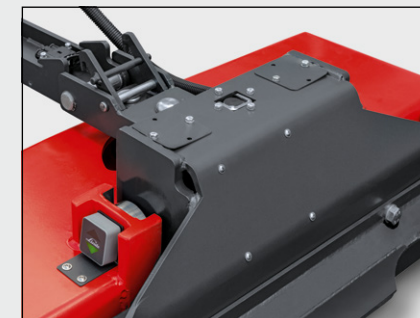
Safety

- Safety pre-lowering from the tractor panel: trolleys remain locked until released via footswitch at the trailer
- Drive lock function: The tractor cannot be started whilst the load is in the lowered position
- Footswitch with stop-movement-function



Operation

- Safe operation from the operating panel at the tow tractor or directly at the trailers' footswitch
- Trailer fitted with Lift function indication
- Operating panel at the tow tractor provides visual feedback of lift units position
- For on-site-control the lift can be operated directly at the trailer
- Drive can only be enabled when the loads are raised



Lifting device

- Pre-adjustable lifting height from 30–100 mm, Optional heavy duty version 30–150 mm,
- Lastsicherung durch Lastanschläge, auf Wunsch auch eine über Fußpedal lösbare, mechanische Verriegelung



Towing device

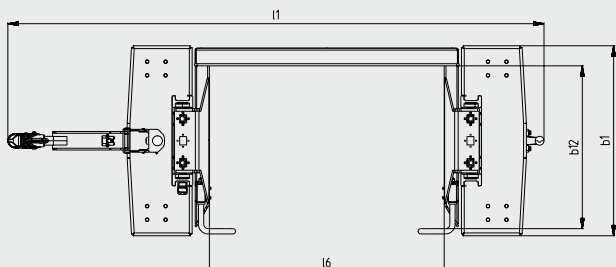
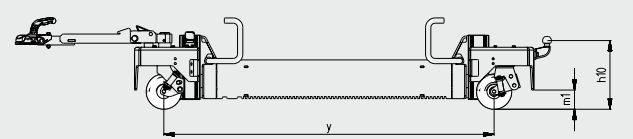
- Trailers are equipped with backlash-free ball type coupling
- The slackless coupling offers the highest directional driving stability
- No backlash noise when driving
- Robust, durable train tiller

Key characteristics (according VDI 2198)

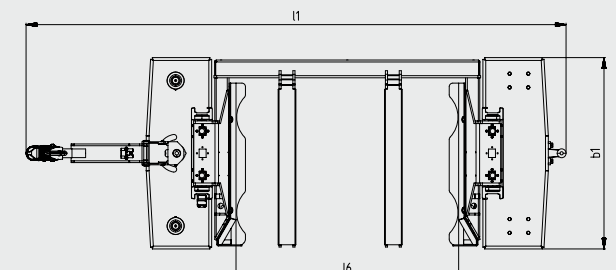
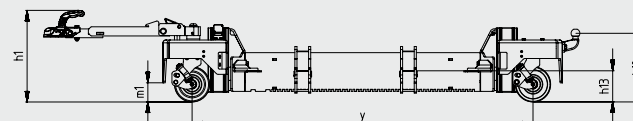
| | | Characteristics | | | | | | | | | | | | |
|-----------------|------------------------------|---------------------------------------------|-----------------------------------|-------------------------------------|----------------------------------|--------------------------------------|-----------------------------|------------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | | 1.1 | 1.2 | 1.2a | 1.5 | 1.6 | 1.8 | 1.9 | 2.1 | 3.1 | 3.2 | 3.3 | | |
| Characteristics | 1.1 | Manufacturer | LINDE | LINDE | LINDE | LINDE | LINDE | LINDE | LINDE | LINDE | LINDE | LINDE | LINDE | LINDE |
| | 1.2 | Model designation | LT08-Z / LT10-Z / LT12-Z | LT08-Z / LT10-Z / LT12-Z heavy duty | LT06 / LT08 / LT12 / LT16 / LT20 | LT08 / LT12 / LT16 / LT20 heavy duty | LT08-BZ / LT12-BZ | LT08-BZ / LT12-BZ heavy duty | LT08-B / LT16-B | LT08-B / LT6-B heavy duty | LT06-P / LT16-P / LT20-P | LT06-P / LT16-P / LT20-P heavy duty | LT06-P / LT16-P / LT20-P heavy duty | LT06-P / LT16-P / LT20-P heavy duty |
| | 1.2a | Series | 1196 | 1196 | 1196 | 1196 | 1196 | 1196 | 1196 | 1196 | 1196 | 1196 | 1196 | 1196 |
| | 1.5 | Load capacity | Q(t) | 0.8/1.0/1.2 | 0.8/1.0/1.2 | 0.6/0.8/1.2/1.6/2.0 | 0.8/1.2/1.6/2.0 | 0.8/1.2 | 0.8/1.2 | 0.8/1.6 | 0.6/1.6/2.0 | 0.6/1.6/2.0 | 0.6/1.6/2.0 | 0.6/1.6/2.0 |
| | 1.6 | Load centre | c(mm) | | | | | | | | | | | |
| | 1.8 | Axle centre to fork | x(mm) | | | | | | | | | | | |
| | 1.9 | Wheelbase | y(mm) | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ | 1876 / 1936 ¹ |
| | Weights | 2.1 | Service Weight | (kg) | 390 ² | 450 ² | 450 ² | 520 ² | 450 ² | 520 ² | 450 ² | 520 ² | 370 ² | 430 ² |
| | | 3.1 | Tyres rubber, SE, polyurethan | | Polyurethane / Solid rubber | SE | Polyurethane / Solid rubber | SE | Polyurethane / Solid rubber | SE | Polyurethane / Solid rubber | SE | Polyurethane / Solid rubber | SE |
| 3.2 | | Tyres size, front | | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | |
| 3.3 | | Tyres size, rear | | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | Ø 200 x 50 | Ø 250 x 85 | |
| 3.5 | | Wheels, number front/rear (x=driven) | | | | | | | | | | | | |
| 3.6 | | Track width, front | b10(mm) | 820 | 820 | 820 | 820 | 820 | 820 | 820 | 820 | 820 | 820 | 820 |
| Dimensions | 4.1 | Mast/fork carriage tilt, forward/backward | a/b(°) | - | - | - | - | - | - | - | - | - | - | |
| | 4.2 | Height of mast, lowerered | h1(mm) | 420 | 470 | 420 | 470 | 420 | 470 | 420 | 470 | 420 | 470 | |
| | 4.4 | Lift | h3(mm) | - | - | 100 | 100 / 150 | - | - | 100 | 100 / 150 | - | - | |
| | 4.4d | Lift funktion | | - | - | electric | electric | - | - | electric | electric | - | - | |
| | 4.5 | Height of mast, extended | h4(mm) | 420 | 470 | 420 | 470 | 420 | 470 | 420 | 470 | 420 | 470 | |
| | 4.12 | Towing coupling height | h10(mm) | 390 | 415 | 390 | 415 | 390 | 415 | 390 | 415 | 390 | 415 | |
| | 4.15 | fork height, lowered | h13(mm) | - | - | 175 | 227 | - | - | 175 | 227 | - | - | |
| | 4.19 | Overall length | l1(mm) | 3045 | 3045 | 3045 | 3045 | 3045 | 3045 | 3045 | 3045 | 3045 | 3045 | |
| | 4.21 | Overall width | b1(mm) | 1079 | 1079 | 1079 | 1079 | 1079 | 1079 | 1079 | 1079 | 1079 | 1079 | |
| | 4.21.6 | Load Length | l6(mm) | 1334 | 1334 | 1334 | 1256 | 1334 | 1286 | 1334 | 1286 | 1256 | 1334 | |
| | 4.21.7 | Load width | b12(mm) | 920 | 920 | 880 | 880 | 920 | 920 | 900 | 900 | 880 | 880 | |
| | 4.22 | Fork dimention | s/e/l(mm) | - | - | 60x100x890 ³ | 60x100x890 ³ | - | - | - | - | - | - | |
| | 4.25 | Fork spread, min/max | b5(mm) | - | - | 0 / 956 | 0 / 956 | - | - | - | - | - | - | |
| | 4.31 | Ground clearance, below mast | m1(mm) | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | |
| | 4.35 | Turning radius (depends on steering system) | Wa(mm) | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | 1950 ⁴ | |
| | 4.36 | Minimum pivoting point distance | b13(mm) | | | | | | | | | | | |
| | Performance | 5.2 | Lifting speed, with/without load | (m/s) | - | - | 0,018 | 0,018 | - | - | 0,018 | 0,018 | - | - |
| | | 5.3 | Lowering speed, with/without load | (m/s) | - | - | 0,018 | 0,018 | - | - | 0,018 | 0,018 | - | - |
| 5.7 | | Climbing ability, with/without load | (%) | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| 5.10 | | Service brake | | without | without | without | without | without | without | without | without | without | without | |
| 6.2 | | Lift motor rating at SE 15% | (kW) | - | - | 0,24 ⁵ | 0,24 ⁵ | - | - | 0,24 ⁵ | 0,24 ⁵ | - | - | |
| 8.5 | Towing coupling: design/type | (mm) | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | Ball coupling Ø 50 | | |

- 1) For trailer fitted with 2 swiveling and 2 fixed wheels
- 2) Service Weight: at smallest load capacity/carry load
- 3) Fork dimension: Measures related to carry load 1200x800mm
- 4) With 4 Frames and load carry related 1200x800mm; Ast = 4900 mm for smallest load, inkl. a = 1000 mm operating aisle clearing
- 5) For load capacity up to 1200kg there are 2 lifting motors, for higher capacity 4 motors

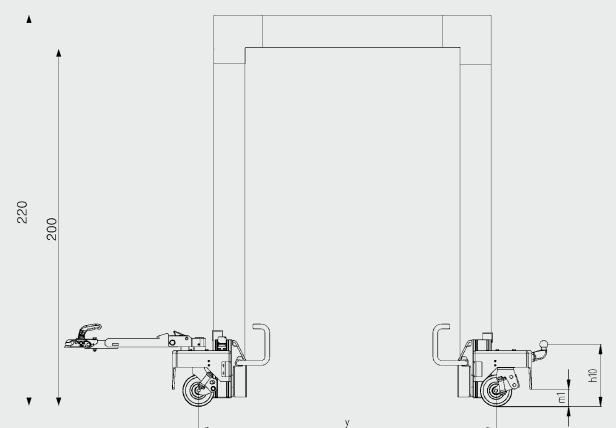
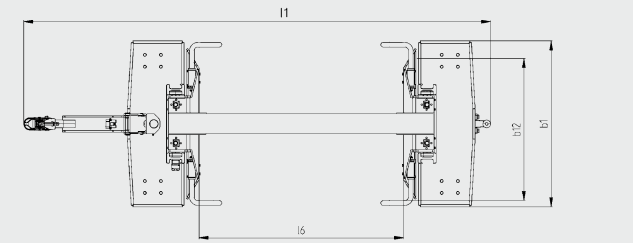
LT08-Z / LT10-Z / LT12-Z LT08-Z / LT10-Z / LT12-Z heavy duty



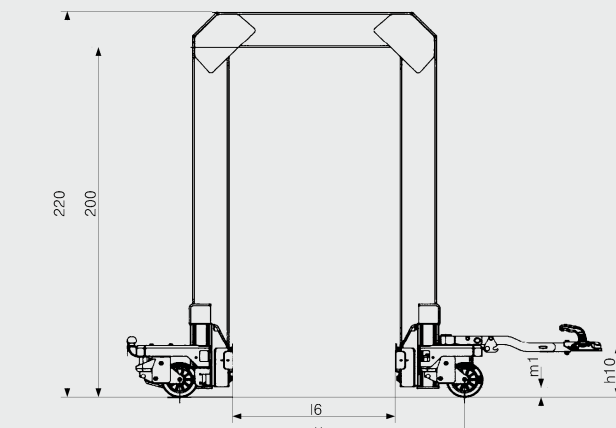
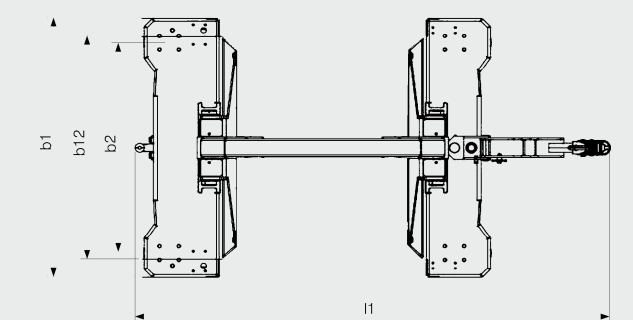
LT06 / LT08 / LT12 / LT16 / LT20 LT08 / LT12 / LT16 / LT20 heavy duty



LT08-BZ / LT12-BZ LT08-BZ / LT12-BZ heavy duty



LT08-B / LT16-B LT08-B / LT6-B heavy duty



LT06-P / LT16-P / LT20-P LT06-P / LT16-P / LT20-P heavy duty

