



Linde Logistic Train LT06 – LT20

Load capacity 600 – 2000 kg

BR1196

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.

Linde Material Handling

Linde

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 18 mm/s

Load capacity: from 600 kg to 2,000 kg

Holding capacity for various load/trolley dimensions:
400x600 up to 2000x1200 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 250x85 mm and lifting
height 30-200 mm, adjustable

Adaptable to customer-specific trolley

Mechanical trolley locking, foot-operated

Load handling of other load dimensions on request

Foot pedal for locking dolly

Alternative paintwork

Weather protection

1 or 2 sets of movable forks

ESD conductivity (ESD wheels)

Lighting system

Stainless steel version for foodstuffs field

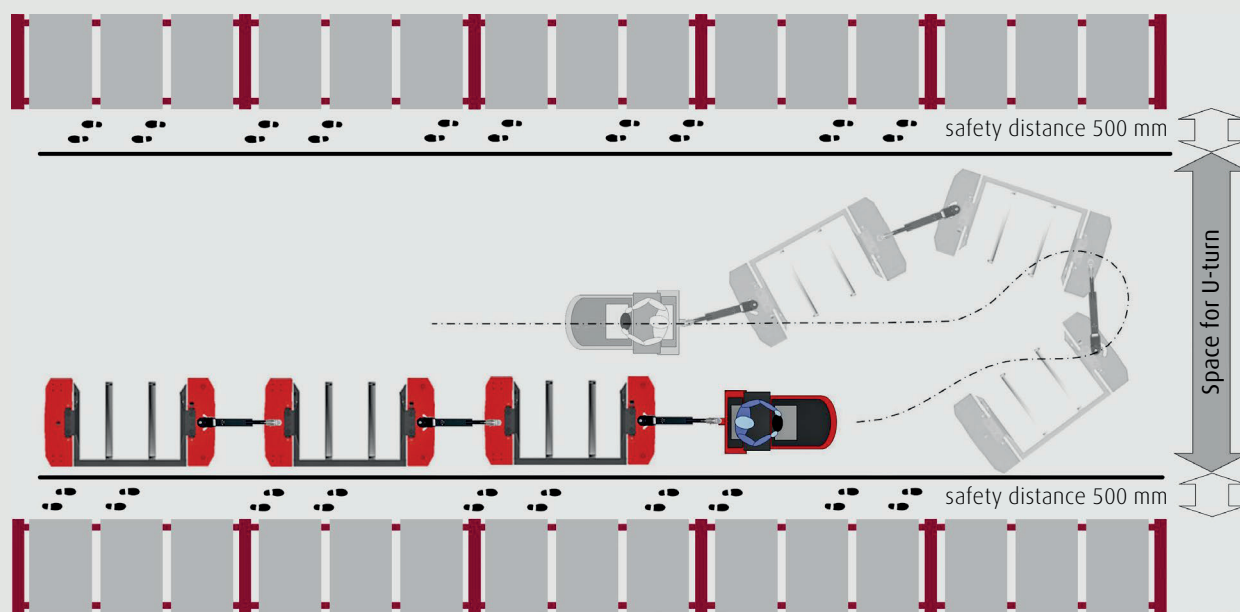
Wet grip drive wheel for tow tractor (P50 C, recommended
for towed load of 3600 kg and above)

Tractor Tractor P20/P30C/P50C/P60/P80 or P250

Additional optional equipment on request

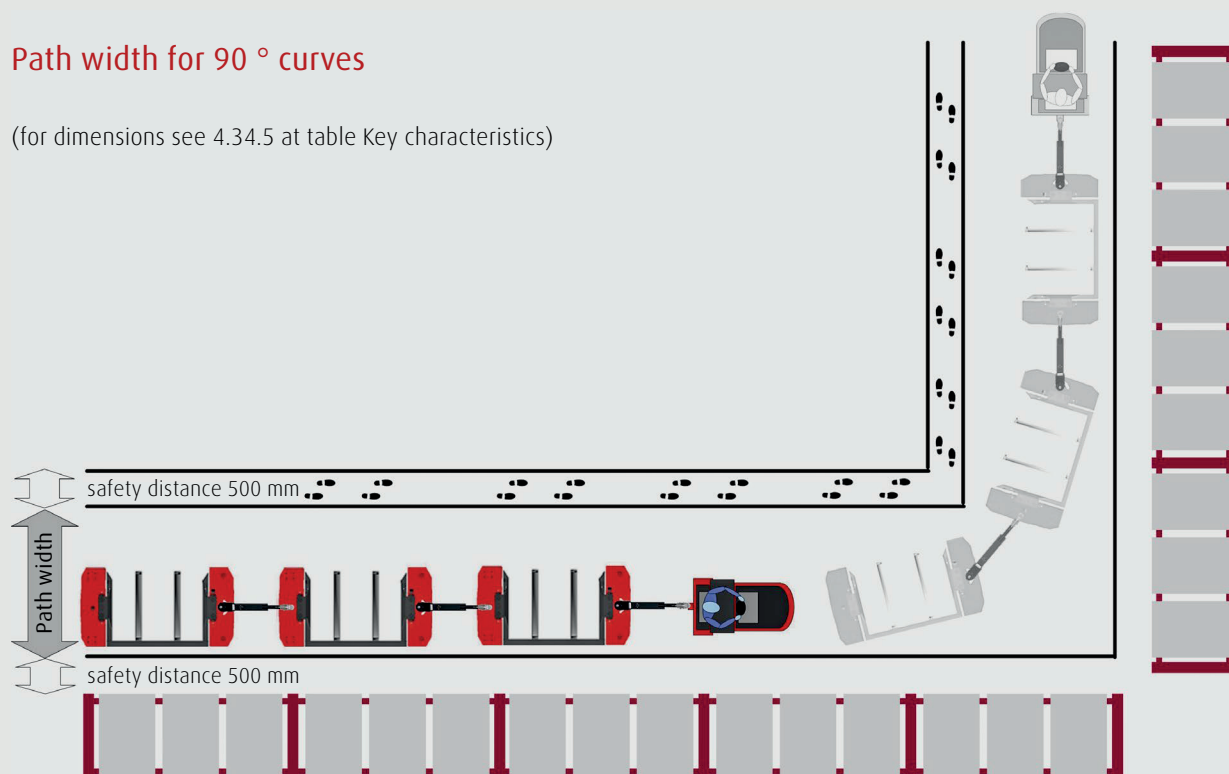
Space required for U-turn with optimized tractor driving line

(for dimensions see 4.35 at tabel Key characteristics)



Path width for 90 ° curves

(for dimensions see 4.34.5 at table Key characteristics)



Key characteristics (according VDI 2198)

| | | | | | | |
|---------------------|--------|--|---|----------------------|------------------------------|------------------------------|
| Distinguishing mark | 1.1 | Manufacturer (abbreviation) | | LINDE | LINDE | |
| | 1.2 | Manufacturer's type designation | | LT06 / LT08 / LT12 | LT06 / LT08 / LT12 | |
| | 1.2a | Series | | 1196 | 1196 | |
| | 1.5 | Rated capacity/rated load | Q(t) | 0.6/0.8/1.2 | 0.6/0.8/1.2 | |
| | 1.9 | Wheelbase | y(mm) | 1937 | 1937 | |
| Weight | 2.1 | Service weight | (kg) | 540 / 540 / 550 | 560 / 560 / 570 | |
| Tyres / chassis | 3.1 | Tyres: solid rubber, superelastic, polyurethane | | SE (opt. PU) | SE (opt. PU) | |
| | 3.2 | Tyre size, front | | Ø 200x50 / x50 / x80 | Ø 200x50 / x50 / x80 | |
| | 3.3 | Tyre size, rear | | Ø 200x50 / x50 / x80 | Ø 200x50 / x50 / x80 | |
| | 3.5 | Wheels, number front/rear | | 2/2 | 2/2 | |
| | 3.6 | Tread | b10(mm) | 820 | 1020 | |
| Dimensions | 4.2.1 | Overall height mech./el. steering (opt. f. wheel-Ø250mm mech./el. steering) | h1(mm) | 462/688 (487/713) | 462/688 (487/713) | |
| | 4.4 | Lift (optional) | h3(mm) | 100 (200) | 100 (200) | |
| | 4.4d | Lifting function | | electrical | electrical | |
| | 4.12 | Coupling height, 200 resp. 250mm wheel | h10(mm) | 417 resp. 442 | 417 resp. 442 | |
| | 4.19 | Overall length (Drawbar short / upright) ¹ | l1(mm) | 3086 / 2268 | 3486 / 2668 | |
| | 4.19.1 | Length in train ¹ (depending on length of adjustable drawbar) | (mm) | 2826 - 3326 | 2826 - 3326 | |
| | 4.16.1 | Opening length for loads | l6(mm) | 1334 | 1334 | |
| | 4.21 | Overall width | b1/b2(mm) | 1079 | 1279 | |
| | 4.22 | Fork dimensions (depth for trolleys x width) | s/e/l(mm) | 860x100 | 1060x100 | |
| | 4.22.1 | Lifting profile (depth x width for trolleys) | (mm) | 860x64 | 1060x64 | |
| | 4.31 | Ground clearance axle 200 resp. 250mm wheel | (mm) | 56 resp. 104 | 56 resp. 104 | |
| | 4.33 | Load dimension | (mm) | 1200x800 | 1200x1000 1200x800 | |
| | 4.34.5 | Driveway width 90°-curves: without safety; safety l/r each 500mm | 1 trailer 2 trailers 3 trailers 4 trailers | (mm) | 1800 1950 2100 2250 | 1900 2050 2200 2350 |
| | 4.35 | Required space for U-Turn: without safety; safety l/r each 500mm | 1 trailer 2 trailers 3 trailers 4 trailers | (mm) | 3500 3800 4100 4250 | 3700 4000 4300 4450 |
| Performance data | 5.2 | Lift speed with / without load | (mm/s) | 18 | 18 | |
| | 5.3 | Lowering speed with / without load | (mm/s) | 18 | 18 | |
| | 5.7 | Gradeability with / without load | (%) | 4 ² | 4 ² | |
| | 5.10 | Service brake | | without | without | |
| | 6.2 | Lift motor rating at S3 15 % | (kW) | 0,24 | 0,24 | |
| | 6.2.1 | Number of lift motors | | 2 / 2 / 4 | 2 / 2 / 4 | |
| | 8.5 | Coupling | | ball coupling Ø 50 | ball coupling Ø 50 | |

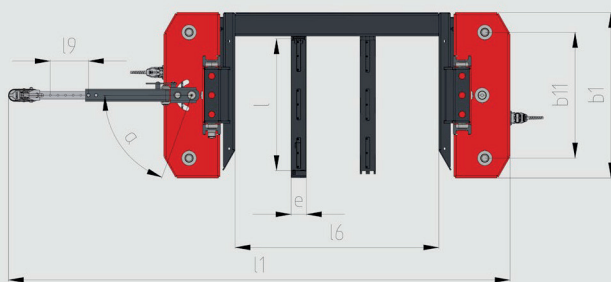
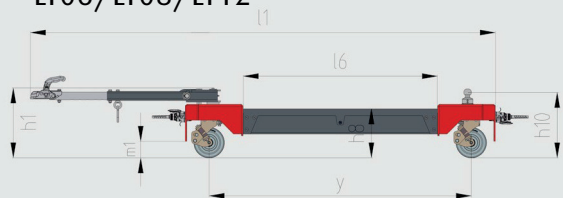
¹) all values are calculated; due to tolerances and suspension travels and plays in components, reality could differ

²) until 4%; between 4% and max. 7% test necessary

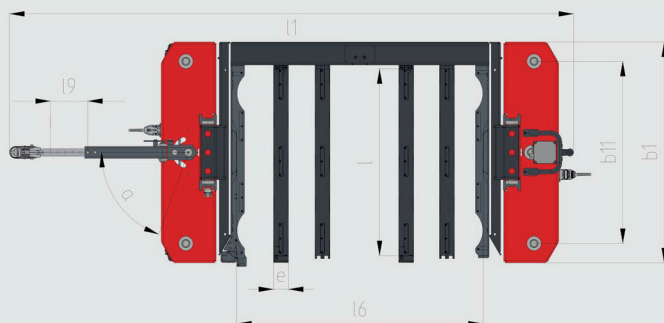
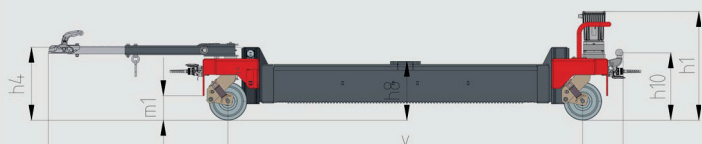
| LINDE | LINDE | LINDE | LINDE |
|---|--|---|---|
| LT16 | LT20 | LT08-B / LT10-B | LT10-B(2) / LT16-B(2) |
| 1196 | 1196 | 1196 | 1196 |
| 1.6 | 2.0 | 0.8/1.0 | 1.0/1.6 |
| 2337 | 2737 | 1937 | 2149 |
| 750 | 770 | 620 / 630 | 720 / 720 |
| SE (opt. PU) | SE | SE (opt. PU) | SE (opt. PU) |
| Ø 200x80 | Ø 250x80 | Ø 200x50 / x80 | Ø 200x50 / Ø 250x80 |
| Ø 200x80 | Ø 250x80 | Ø 200x50 / x80 | Ø 200x50 / Ø 250x80 |
| 2/2 | 2/2 | 2/2 | 2/2 |
| 1220 | 1220 | 820 | 820 |
| 462/688 (487/713) | 487/713 | 2275 2300 | 2305 2330 |
| 100 (200) | 100 (200) | 100 (200) | 100 (200) |
| electrical | electrical | electrical | electrical |
| 417 resp. 442 | 417 resp. 442 | 417 resp. 442 | 417 resp. 442 |
| 3486 / 3068 | 3141 / 2268 | 3353 / 2480 | 3753 / 2880 |
| 3226 - 3726 | 3626 - 4126 | 3086 - 3586 | 3298 - 3798 |
| 1734 | 2134 | 1334 | 1546 |
| 1479 | 1479 | 1079 | 1079 |
| 1260x100 | 1260x100 | - | - |
| 1260x64 | 1260x64 | 1060x64 | 1060x64 |
| 56 resp. 104 | 56 resp. 104 | 56 resp. 104 | 56 resp. 104 |
| 1600x1200 With 2 pair of forks: 2pcs. 1200x800 4pcs. 800x600 | 2000x1200 With 2 pair of forks: 2pcs. 1200x1000 2pcs. 1200x800 4pcs. 1000x600 4pcs. 800x600 | 1200x800 (or 2pcs. 1200x400) 1200x1000 (or 2pcs. 1200x500) | 1200x800 1200x1000 Adjustable center support allows different load dimensions + combinations. |
| 2000 | 2200 | 1700 | 1800 |
| 2150 | 2350 | 1850 | 1950 |
| 2300 | 2500 | 2000 | 2100 |
| 2450 | 2650 | 2150 | 2250 |
| 4100 | 4300 | 3500 | 3650 |
| 4400 | 4600 | 3800 | 3950 |
| 4700 | 4900 | 4100 | 4250 |
| 4850 | 5050 | 4250 | 4400 |
| 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 |
| 4 ² | 4 ² | 4 ² | 4 ² |
| without | without | without | without |
| 0,24 | 0,24 | 0,24 | 0,24 |
| 4 | 4 | 2 / 4 | 4 / 4 |
| ball coupling Ø 50 | ball coupling Ø 50 | ball coupling Ø 50 | ball coupling Ø 50 |

| LINDE | LINDE | LINDE | LINDE |
|---|--|--------------------|--|
| LT16-B(2) | LT16-B(2) | LT16-B | LT10-P / LT20-P |
| 1196 | 1196 | 1196 | 1196 |
| 1.6 | 1.6 | 1.6 | 1.0/2.0 |
| 2549 | 2949 | 2337 | 1937 / 2337 |
| 860 | 890 | 770 | 305 / 360 |
| SE (opt. PU) | SE (opt. PU) | SE (opt. PU) | SE (opt. for LT10-P: PU) |
| Ø 250x80 | Ø 250x80 | Ø 250x80 | Ø 200x50 / Ø 250x80 |
| Ø 250x80 | Ø 250x80 | Ø 250x80 | Ø 200x50 / Ø 250x80 |
| 2/2 | 2/2 | 2/2 | 2/2 |
| 1020 | 1020 | 1020 | 820 / 1020 |
| 2305 | 2305 | 2275 | 462/688 |
| 2330 | 2330 | 2300 | (487/713) |
| 100 (200) | 100 (200) | 100 (200) | 100 (200) |
| electrical | electrical | electrical | |
| 417 resp. 442 | 417 resp. 442 | 417 resp. 442 | 417 resp. 442 |
| 4153 / 3280 | 4153 / 3280 | 3541 / 2668 | 3086 / 2268 3486 / 2668 |
| 3698 - 4198 | 4098 - 4598 | 3486 - 3986 | 2826 - 3326 / 3226 - 3726 |
| 1946 | 2346 | 1734 | 1334 / 1734 |
| 1279 | 1279 | 1279 | 1079 / 1279 |
| - | - | - | - |
| 1260x64 | 1260x64 | 1260x64 | - |
| 56 resp. 104 | 56 resp. 104 | 56 resp. 104 | 56 resp. 104 |
| 1600x1200 2pcs. 1200x800 Adjustable center support allows different load dimensions + combinations. | 2000x1200 2pcs. 1200x1000 Adjustable center support allows different load dimensions + combinations. | 1600x1200 | allows only loads without trolleys: max. 1200x1000 / max. 1600x1200 |
| 2000 | 2200 | 1900 | 1700 / 1900 |
| 2150 | 2350 | 2050 | 1850 / 2050 |
| 2300 | 2500 | 2200 | 2000 / 2200 |
| 2450 | 2650 | 2350 | 2150 / 2350 |
| 4050 | 4450 | 4000 | LT10-P: 3500/3800 /4100/4250; |
| 4350 | 4750 | 4300 | LT20-P: 3600/4050/4450/4850 |
| 4650 | 5050 | 4600 | |
| 4800 | 5200 | 4700 | |
| 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 |
| 4² | 4² | 4² | 4² |
| without | without | without | without |
| 0,24 | 0,24 | 0,24 | - |
| 4 | 4 | 4 | - |
| ball coupling Ø 50 | ball coupling Ø 50 | ball coupling Ø 50 | ball coupling Ø 50 |

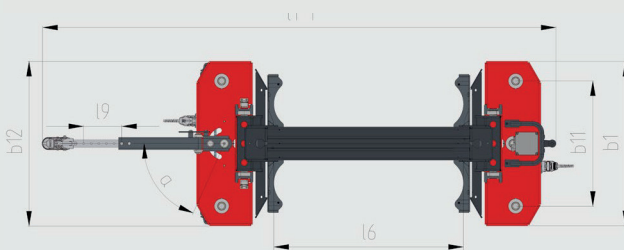
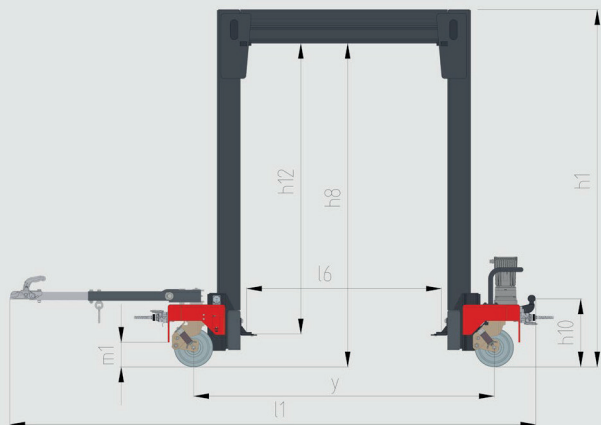
LT06/LT08/LT12



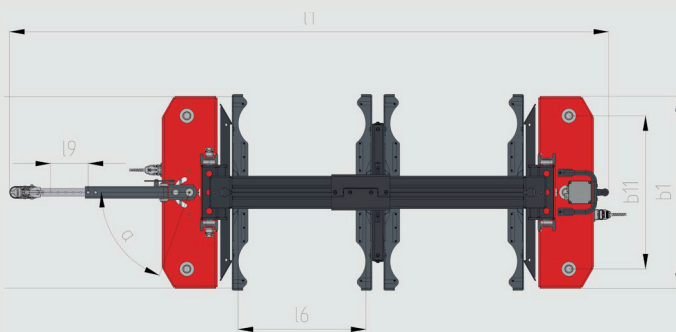
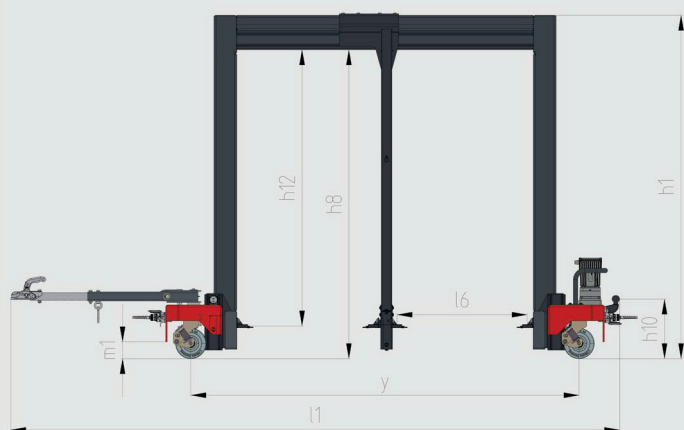
LT16/LT20



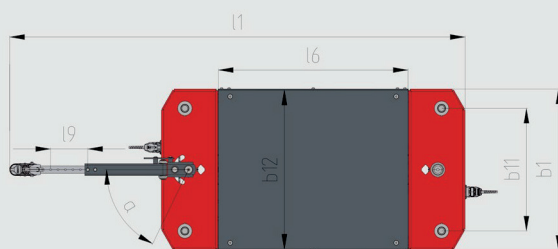
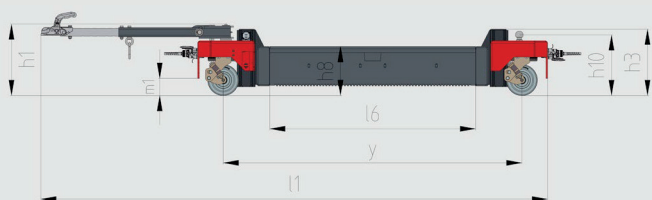
LT08-B/LT10-B/LT16-B



LT08-B/LT10-B/LT16-B



LT10-P/LT20-P



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

Serviceability

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



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



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 30-200 mm
- Load securing by load stops, on request also a foot-pedal-activated mechanical locking



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

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Linde Material Handling