



## Logistic Train Solutions

# LT06 – LT10 M | LT10 W

Capacity 0.6 t – 1.0 t | Series 8971

### Flexible Indoor Train

- Compact logistic train for transporting goods indoors
- Available as W-frames with sloped platform for two-sided loading and unloading or M-frames for ground-level loading and unloading
- The narrow design and manoeuvrable single-axle construction allow for versatile use, even in confined spaces
- The tow tractor can reach high speeds thanks to the low service weight of the attachments
- Frames available with Linde trolleys or adaptable to customer-supplied load carriers

# TECHNICAL DATA (according to VDI 2198)

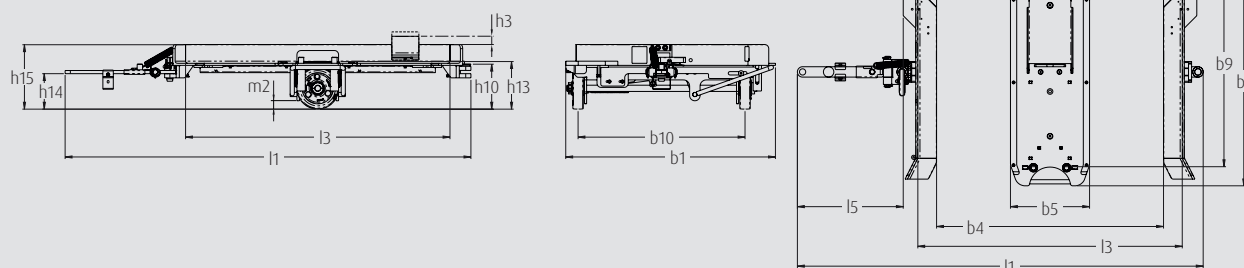
For simplicity, representative models shown. Ask your local contact person for the final data, which may vary depending on the customer-specific scope and configuration.

| Characteristics  | 1.1   | Manufacturer                                               |               | Linde MH                                     | Linde MH                                     | Linde MH                                        | Linde MH                                     | Linde MH                                     | Linde MH                                        | Linde MH                                     |
|------------------|-------|------------------------------------------------------------|---------------|----------------------------------------------|----------------------------------------------|-------------------------------------------------|----------------------------------------------|----------------------------------------------|-------------------------------------------------|----------------------------------------------|
|                  | 1.2   | Manufacturer's type designation                            |               | LT06 M<br>1x TR1200 × 800                    | LT10 M<br>1x TR1200 × 800                    | LT10 M<br>1x TR1200 × 1000                      | LT10 M<br>2x TR800 × 600                     | LT10 W<br>1x TR1200 × 800                    | LT10 W<br>1x TR1200 × 1000                      | LT10 W<br>3x TR800 × 600                     |
|                  | 1.2a  | Series                                                     |               | 8971 <sup>1)</sup>                           | 8971 <sup>1)</sup>                           | 8971 <sup>10)</sup>                             | 8971 <sup>12)</sup>                          | 8971 <sup>1)</sup>                           | 8971 <sup>10)</sup>                             | 8971 <sup>14)</sup>                          |
|                  | 1.5   | Rated capacity/rated load                                  | Q (t)         | 0.6                                          | 1.0                                          | 1.0                                             | 1.0 <sup>13)</sup>                           | 1.0                                          | 1.0                                             | 1.0 <sup>15)</sup>                           |
| Weight           | 2.1   | Service weight                                             | kg            | 158                                          | 170                                          | 200                                             | 254                                          | 204                                          | 237                                             | 408                                          |
|                  | 3.1   | Tyres: solid rubber, superelastic, pneumatic, polyurethane |               | Polyurethane                                 | Polyurethane                                 | Polyurethane                                    | Polyurethane                                 | Polyurethane                                 | Polyurethane                                    | Polyurethane                                 |
| Tyres/chassis    | 3.2   | Tyre size, front                                           |               | Ø 200 × 50                                   | Ø 200 × 50                                   | Ø 200 × 50                                      | Ø 200 × 50                                   | Ø 200 × 50                                   | Ø 200 × 50                                      | Ø 200 × 50                                   |
|                  | 3.3   | Tyre size, rear                                            |               | Ø 200 × 50                                   | Ø 200 × 50                                   | Ø 200 × 50                                      | Ø 200 × 50                                   | Ø 200 × 50                                   | Ø 200 × 50                                      | Ø 200 × 50                                   |
|                  | 3.5   | Wheels, number front/rear (x = driven wheels)              |               | 2                                            | 2                                            | 2                                               | 2                                            | 2                                            | 2                                               | 2                                            |
|                  | 3.6   | Tread, front                                               | b10 (mm)      | 800                                          | 800                                          | 1000                                            | 845                                          | 810                                          | 1010                                            | 810                                          |
|                  | 3.7   | Tread, rear                                                | b11 (mm)      | -                                            | -                                            | -                                               | -                                            | -                                            | -                                               | -                                            |
|                  | 3.7   | Tread, rear                                                | b11 (mm)      | -                                            | -                                            | -                                               | -                                            | -                                            | -                                               | -                                            |
| Dimensions       | 4.2.1 | Overall height                                             | h15 (mm)      | 310/350 <sup>2)</sup>                        | 310/350 <sup>2)</sup>                        | 310/350 <sup>2)</sup>                           | 310/350 <sup>2)</sup>                        | 313/353 <sup>2)</sup>                        | 313/353 <sup>2)</sup>                           | 313/353 <sup>2)</sup>                        |
|                  | 4.4   | Lift                                                       | h3 (mm)       | 40 <sup>3)</sup>                             | 40 <sup>3)</sup>                             | 40 <sup>3)</sup>                                | 40 <sup>3)</sup>                             | 40 <sup>3)</sup>                             | 40 <sup>3)</sup>                                | 40 <sup>3)</sup>                             |
|                  | 4.4a  | Lift function                                              |               | Hydraulic/electric <sup>3)</sup>             | Hydraulic/electric <sup>3)</sup>             | Hydraulic/electric <sup>3)</sup>                | Hydraulic/electric <sup>3)</sup>             | Hydraulic/electric <sup>3)</sup>             | Hydraulic/electric <sup>3)</sup>                | Hydraulic/electric <sup>3)</sup>             |
|                  | 4.9   | Height drawbar in driving position min./max.               | h14 (mm)      | 170/210 <sup>2)</sup>                        | 170/210 <sup>2)</sup>                        | 170/210 <sup>2)</sup>                           | 170/210 <sup>2)</sup>                        | 170/210 <sup>2)</sup>                        | 170/210 <sup>2)</sup>                           | 170/210 <sup>2)</sup>                        |
|                  | 4.12  | Coupling height                                            | h10 (mm)      | 185/225 <sup>2)</sup>                        | 185/225 <sup>2)</sup>                        | 185/225 <sup>2)</sup>                           | 185/225 <sup>2)</sup>                        | 185/225 <sup>2)</sup>                        | 185/225 <sup>2)</sup>                           | 185/225 <sup>2)</sup>                        |
|                  | 4.13  | Loading height, unladen                                    | h11 (mm)      | -                                            | -                                            | -                                               | -                                            | -                                            | -                                               | -                                            |
|                  | 4.15  | Height, lowered                                            | h13 (mm)      | 228                                          | 228                                          | 228                                             | 228                                          | 228                                          | 228                                             | 228                                          |
|                  | 4.16  | Length of loading surface                                  | l3 (mm)       | 1270                                         | 1270                                         | 1270                                            | 1786                                         | 1240                                         | 1240                                            | 2030                                         |
|                  | 4.17  | Overhang                                                   | l5 (mm)       | 533                                          | 533                                          | 683                                             | 683                                          | 533                                          | 683                                             | 533                                          |
|                  | 4.18  | Width of loading surface                                   | b9 (mm)       | 837                                          | 837                                          | 1037                                            | 834                                          | 834                                          | 1034                                            | 834                                          |
|                  | 4.19  | Overall length                                             | l1 (mm)       | 1953                                         | 1953                                         | 2095                                            | 2568                                         | 2069                                         | 2219                                            | 2859                                         |
|                  | 4.21  | Overall width                                              | b1/b2 (mm)    | 1007                                         | 1007                                         | 1207                                            | 1062                                         | 1070                                         | 1270                                            | 1070                                         |
|                  | 4.25  | Fork spread                                                | b5 (mm)       | 380 <sup>4)</sup>                            | 380 <sup>4)</sup>                            | 380 <sup>4)</sup>                               | 536 <sup>4)</sup>                            | 350 <sup>4)</sup>                            | 350 <sup>4)</sup>                               | 350 <sup>4)</sup>                            |
|                  | 4.26  | Distance between wheel arms/ loading surfaces              | b4 (mm)       | 1090                                         | 1090                                         | 1090                                            | 1610                                         | 1204                                         | 1204                                            | 1994                                         |
|                  | 4.32  | Ground clearance, centre of wheelbase                      | m2 (mm)       | 25/65 <sup>2)</sup>                          | 25/65 <sup>2)</sup>                          | 25/65 <sup>2)</sup>                             | 25/65 <sup>2)</sup>                          | 0/40 <sup>2)</sup>                           | 0/40 <sup>2)</sup>                              | 0/40 <sup>2)</sup>                           |
|                  | 4.33  | Load dimension b12 × l6                                    | b12 × l6 (mm) | 1x 810 × 1210/<br>1x 630 × 820 <sup>5)</sup> | 1x 810 × 1210/<br>1x 630 × 820 <sup>5)</sup> | 1x 1010 × 1210/<br>1x 630 × 1020 <sup>11)</sup> | 2x 630 × 820/<br>1x 810 × 1210 <sup>5)</sup> | 1x 810 × 1210/<br>1x 630 × 820 <sup>5)</sup> | 1x 1010 × 1210/<br>1x 630 × 1020 <sup>11)</sup> | 3x 630 × 820/<br>1x 810 × 1210 <sup>5)</sup> |
|                  | 4.34  | Aisle width predetermined load dimensions                  | Ast (mm)      | 4900 <sup>4)</sup>                           | 4900 <sup>4)</sup>                           | 5200 <sup>4)</sup>                              | 7200 <sup>4)</sup>                           | 4900 <sup>4)</sup>                           | 5200 <sup>4)</sup>                              | 7700 <sup>4)</sup>                           |
|                  | 4.34b | Aisle width, 90° curve                                     | Ast1 (mm)     | 3260 <sup>4)</sup>                           | 3260 <sup>4)</sup>                           | 3460 <sup>4)</sup>                              | 3820 <sup>4)</sup>                           | 3320 <sup>4)</sup>                           | 3520 <sup>4)</sup>                              | 4070 <sup>4)</sup>                           |
|                  | 4.35  | Turning radius                                             | Wa (mm)       | 1950 <sup>4)</sup>                           | 1950 <sup>4)</sup>                           | 2100 <sup>4)</sup>                              | 3100 <sup>4)</sup>                           | 1950 <sup>4)</sup>                           | 2100 <sup>4)</sup>                              | 3350 <sup>4)</sup>                           |
| Performance data | 5.1   | Travel speed, laden/unladen                                | km/h          | 15 <sup>7)</sup>                             | 15 <sup>7)</sup>                             | 15 <sup>7)</sup>                                | 15 <sup>7)</sup>                             | 15 <sup>7)</sup>                             | 15 <sup>7)</sup>                                | 15 <sup>7)</sup>                             |
|                  | 5.2   | Lifting speed, laden/unladen                               | m/s           | 0.01                                         | 0.01                                         | 0.01                                            | 0.01                                         | 0.01                                         | 0.01                                            | 0.01                                         |
|                  | 5.7   | Gradeability, laden/unladen                                | %             | 7.0 <sup>8)</sup>                            | 7.0 <sup>8)</sup>                            | 7.0 <sup>8)</sup>                               | 7.0 <sup>8)</sup>                            | 7.0 <sup>8)</sup>                            | 7.0 <sup>8)</sup>                               | 7.0 <sup>8)</sup>                            |
|                  | 5.10  | Service brake                                              |               | without                                      | without                                      | without                                         | without                                      | without                                      | without                                         | without                                      |
| Electric-engine  | 6.2   | Lift motor rating at S3 15%                                | kW            | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                               | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                               | 0.4 <sup>3)</sup>                            |
|                  | 6.2   | Lift motor rating at S3 15%                                | kW            | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                               | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                            | 0.4 <sup>3)</sup>                               | 0.4 <sup>3)</sup>                            |
| Additional data  | 10.8  | Towing coupling, design/ type, DIN                         |               | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                         | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                         | Ø 25/Ø 30 <sup>9)</sup>                      |
|                  | 10.8  | Towing coupling, design/ type, DIN                         |               | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                         | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                      | Ø 25/Ø 30 <sup>9)</sup>                         | Ø 25/Ø 30 <sup>9)</sup>                      |

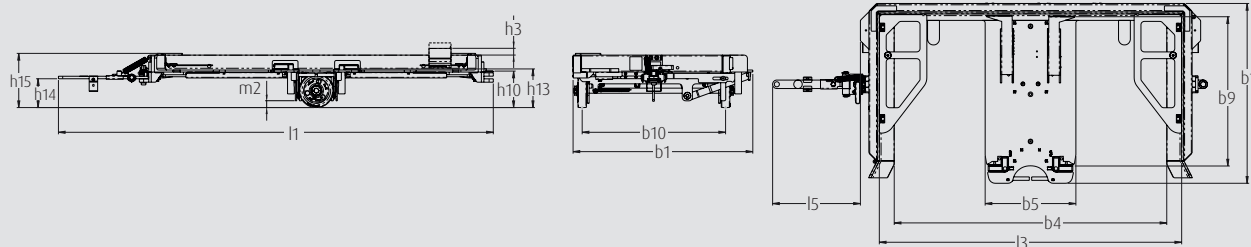
- 1) Frame design for transport of either one Linde trolley TR1200 × 800 or one Linde trolley TR800 × 600 with one frame
- 2) In lowered/raised position
- 3) After lift initiation, the complete frame including load pick-up device is lifted hydraulically by 40 mm. An electric lifting function is available as an option (1x lifting motor). Free stroke for LT M = 7 mm, for LT W = 0 mm
- 4) LT M: Centered load handling device; LT W: Middle block
- 5) Loading surface dimensions b9 × l3 of Linde trolley TR1200 × 800 = 810 × 1210 mm (outer dimensions b1 × l1 incl. fang corners = 860 × 1260 mm). /Loading surface dimensions b9 × l3 of Linde trolley TR800 × 600 = 630 × 820 mm (outer dimensions b1 × l1 incl. fang corners = 680 × 870 mm)
- 6) For 4 frames in combination with tow tractor P60 C of series 4595. AST values = incl. safety space of 1000 mm (a/2 = 500 mm on each side)
- 7) Depending on the used tow tractor
- 8) In case of gradients the max. allowed speed is 6 km/h. Up to 7% ramp possibility to operate the frames without driving a radius. Ramps beyond this value needs to be reviewed in detail

- 9) Logistic train drawbar system for LT M and LT W. Frames are connected to the tow tractor (2-level-coupling) with a Ø 25 mm bolt and to each other with a Ø 30 mm bolt
- 10) Frame design for transport of either one Linde trolley TR1200 × 1000 or one Linde trolley TR1000 × 600 with one frame
- 11) Loading surface dimensions b9 × l3 of Linde trolley TR1200 × 1000 = 1010 × 1210 mm (outer dimensions b1 × l1 incl. fang corners = 1060 × 1260 mm). /Loading surface dimensions b9 × l3 of Linde trolley TR1000 × 600 = 630 × 1020 mm (outer dimensions b1 × l1 incl. fang corners = 680 × 1070 mm)
- 12) Frame design for transport of either two Linde trolleys TR800 × 600 or one Linde trolley TR1200 × 800 with one frame
- 13) 2 slots. Max. load capacity of the left/ right slot = 300 kg each. Max. load capacity of the combined slot = 1000 kg. In case of double loading, max. weight per trolley = 300 kg
- 14) Frame design for transport of either three Linde trolleys TR800 × 600 or one Linde trolley TR1200 × 800 with one frame
- 15) 3 slots. Max. load capacity of the left or right slot = 300 kg each. Max. load capacity of the middle slot = 1000 kg. In case of triple loading, max. weight per trolley = 300 kg

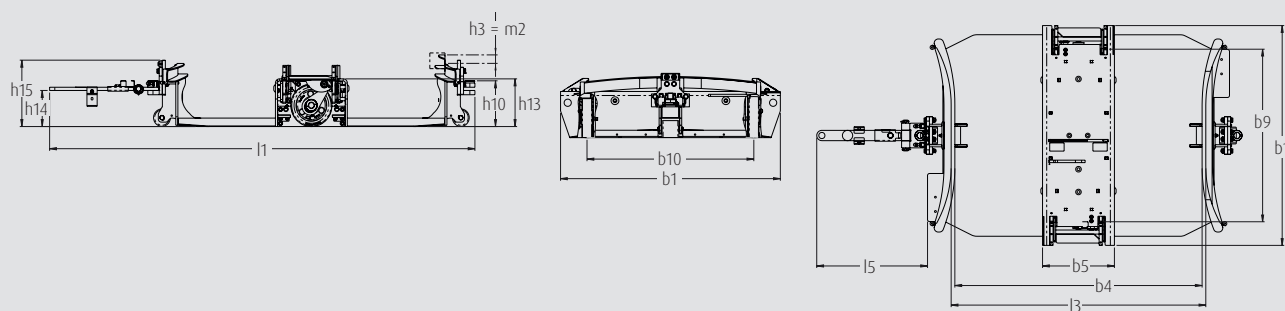
## LT06 M/LT10 M (1x TR1200 × 800/1x TR1200 × 1000)



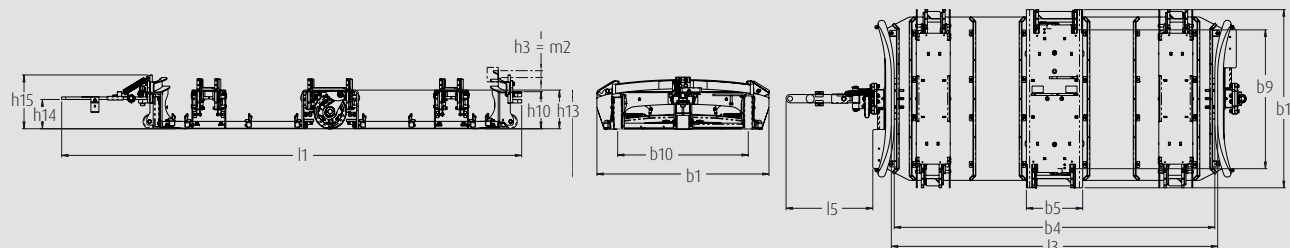
## LT10 M (2x TR800 × 600)



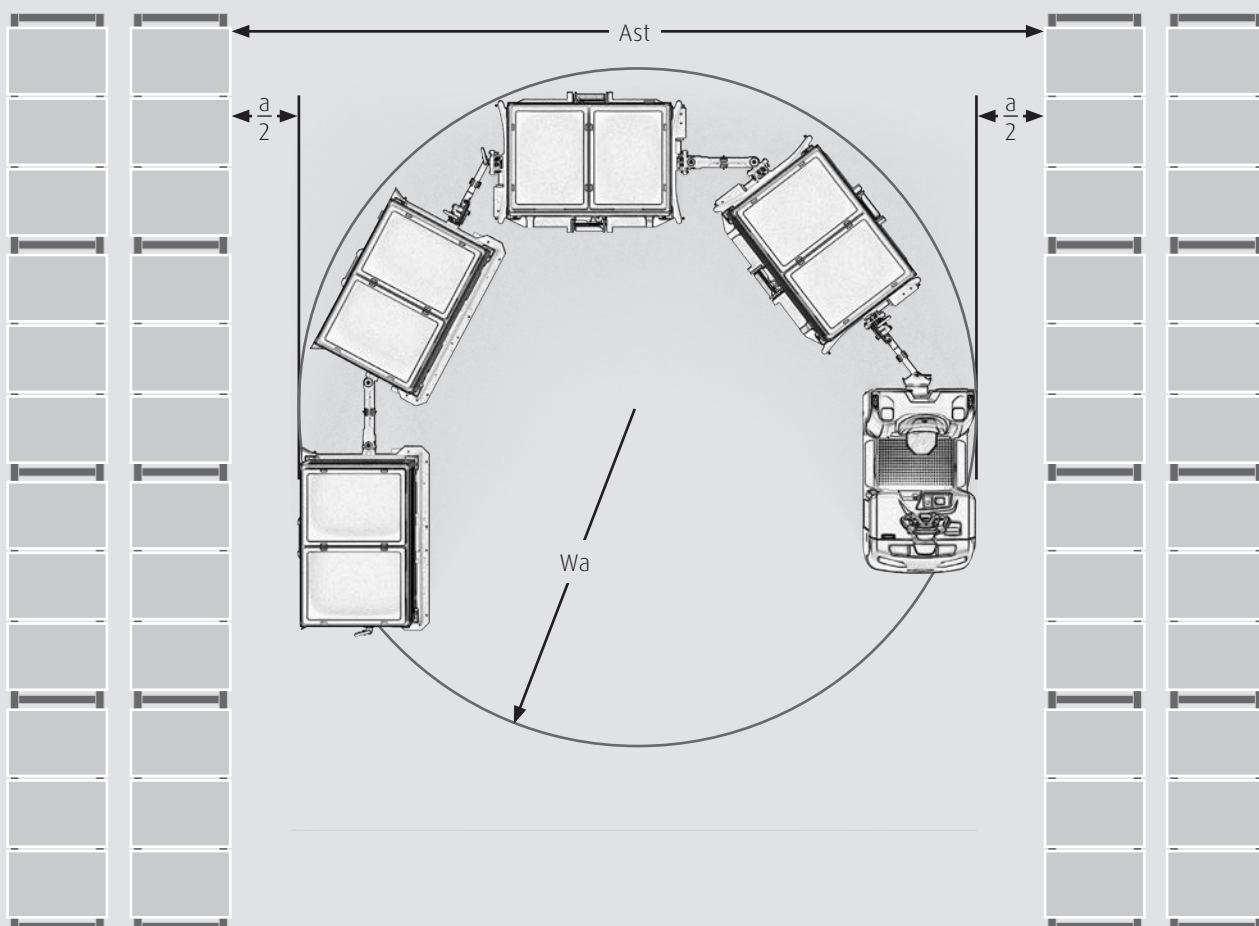
## LT10 W (1x TR1200 × 800/1x TR1200 × 1000)



## LT10 W (3x TR800 × 600)



AST

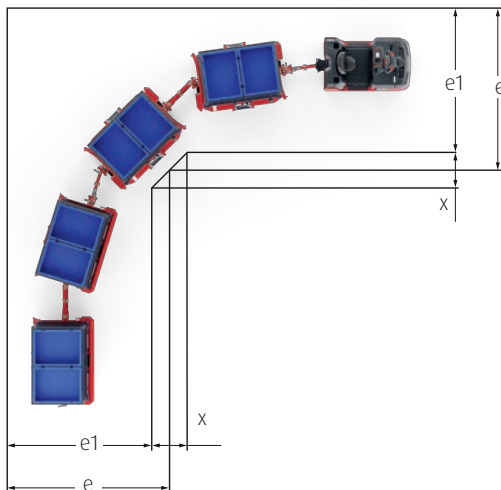


# EXAMPLES OF AISLE WIDTHS

| Frame type | Frame size       | Frames per train | Loads per train    | Train length (mm)                        | e (mm) <sup>1)</sup>                   | e1 (mm) <sup>1)</sup> | x (mm)                                | e2 (mm) <sup>1)</sup>                  | e3 (mm) <sup>1)</sup> | d (mm) | e4 (mm) <sup>2)3)4)</sup> |
|------------|------------------|------------------|--------------------|------------------------------------------|----------------------------------------|-----------------------|---------------------------------------|----------------------------------------|-----------------------|--------|---------------------------|
| LT06 M     | 1x TR1200 × 800  | 2                | 2                  | 5322 <sup>2)</sup> /5676 <sup>3)</sup>   | 2010                                   | 2010                  | 0                                     | 2200 <sup>2)</sup> /2400 <sup>3)</sup> | 2000                  | 2000   | 2900                      |
|            |                  | 4                | 4                  | 9118 <sup>2)</sup> /9472 <sup>3)</sup>   | 2260                                   | 2010                  | 500                                   | 3000 <sup>2)</sup> /3200 <sup>3)</sup> | 2000                  | 2000   | 2900                      |
| LT10 M     | 1x TR1200 × 800  | 2                | 2                  | 5322 <sup>2)</sup> /5676 <sup>3)</sup>   | 2010                                   | 2010                  | 0                                     | 2200 <sup>2)</sup> /2400 <sup>3)</sup> | 2000                  | 2000   | 2900                      |
|            |                  | 4                | 4                  | 9118 <sup>2)</sup> /9472 <sup>3)</sup>   | 2260                                   | 2010                  | 500                                   | 3000 <sup>2)</sup> /3200 <sup>3)</sup> | 2000                  | 2000   | 2900                      |
|            | 1x TR1200 × 1000 | 2                | 2                  | 5622 <sup>2)</sup> /5976 <sup>3)</sup>   | 2210                                   | 2210                  | 0                                     | 2500 <sup>2)</sup> /2700 <sup>3)</sup> | 2300                  | 2000   | 3300                      |
|            |                  | 4                | 4                  | 9718 <sup>2)</sup> /10072 <sup>3)</sup>  | 2460 <sup>2)</sup> /2710 <sup>3)</sup> | 2210                  | 500 <sup>2)</sup> /1000 <sup>3)</sup> | 3300 <sup>2)</sup> /3500 <sup>3)</sup> | 2300                  | 2000   | 3300                      |
|            | 2x TR800 × 600   | 2                | 4/2 <sup>5)</sup>  | 6864 <sup>2)</sup> /7218 <sup>3)</sup>   | 2320                                   | 2070                  | 500                                   | 2500 <sup>2)</sup> /2600 <sup>3)</sup> | 2500                  | 2000   | 2950                      |
|            |                  | 4                | 8/4 <sup>5)</sup>  | 12202 <sup>2)</sup> /12556 <sup>3)</sup> | 2820                                   | 2070                  | 1500                                  | 3500 <sup>2)</sup> /3600 <sup>3)</sup> | 2500                  | 2000   | 2950                      |
| LT10 W     | 1x TR1200 × 800  | 2                | 2                  | 5565 <sup>2)</sup> /5919 <sup>3)</sup>   | 2070                                   | 2070                  | 0                                     | 2200 <sup>2)</sup> /2400 <sup>3)</sup> | 2000                  | 2000   | 2950                      |
|            |                  | 4                | 4                  | 9604 <sup>2)</sup> /9958 <sup>3)</sup>   | 2320                                   | 2070                  | 500                                   | 3000 <sup>2)</sup> /3200 <sup>3)</sup> | 2000                  | 2000   | 2950                      |
|            | 1x TR1200 × 1000 | 2                | 2                  | 5865 <sup>2)</sup> /6219 <sup>3)</sup>   | 2270                                   | 2270                  | 0                                     | 2500 <sup>2)</sup> /2700 <sup>3)</sup> | 2000                  | 2000   | 3350                      |
|            |                  | 4                | 4                  | 10204 <sup>2)</sup> /10558 <sup>3)</sup> | 2520 <sup>2)</sup> /2770 <sup>3)</sup> | 2270                  | 500                                   | 3300 <sup>2)</sup> /3500 <sup>3)</sup> | 2000                  | 2000   | 3350                      |
|            | 3x TR800 × 600   | 2                | 6/2 <sup>5)</sup>  | 7145 <sup>2)</sup> /7499 <sup>3)</sup>   | 2570                                   | 2070                  | 1000                                  | 2700 <sup>2)</sup> /2800 <sup>3)</sup> | 2700                  | 2000   | 2950                      |
|            |                  | 4                | 12/4 <sup>5)</sup> | 12764 <sup>2)</sup> /13118 <sup>3)</sup> | 3070                                   | 2070                  | 2000                                  | 3700 <sup>2)</sup> /3800 <sup>3)</sup> | 2700                  | 2000   | 2950                      |

- 1) Without oncoming traffic and without safety distance. We suggest maintaining a safety distance of 1000 mm ( $a/2 = 500$  mm on each side).  
 Recommendation: The longer the train, the larger the safety distance required to mitigate any potential uncertainty resulting from driver operation  
 2) In combination with P40–P60 C and P40 C B of series 4595. Note: Values are calculated; final values may vary slightly  
 3) In combination with P60–P80 of series 1191. Note: Values are calculated; final values may vary slightly  
 4) Recommendation:  $e4 = a + b + c$ . With no oncoming traffic and no overtaking  
 5) Frame design for transport of either two Linde trolleys TR800 × 600 or one Linde trolley TR1200 × 800 with one frame  
 6) Frame design for transport of either three Linde trolleys TR800 × 600 or one Linde trolley TR1200 × 800 with one frame

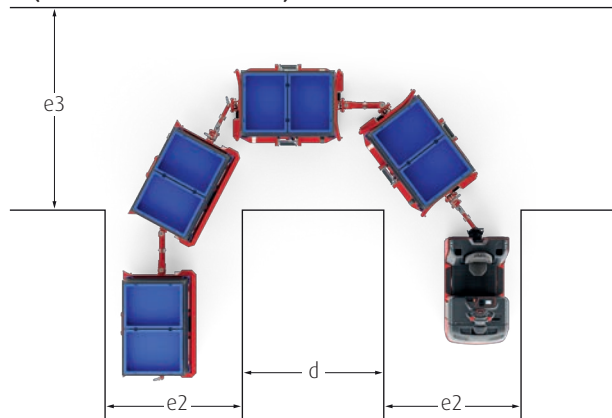
## 90° CURVES



e = Aisle width without corner modification  
 e1 = Aisle width with corner modification  
 x = Inward modification of corners

## 180° CURVES

(SAMPLE AISLE CHANGE)



e2 = Aisle width before/after a 180° curve  
 e3 = Aisle width when negotiating a 180° curve  
 d = Distance between aisles

## LOADING & UNLOADING ZONES



e4 = Required aisle width for loading and unloading process  
 a = Added margin + added for handling  
 b = Width of logistic train incl. play  
 c = Trolley dimensions incl. play

# LOGISTIC TRAIN SYSTEM OVERVIEW



## TOW TRACTORS

P20



P40 – P60 C | P40 C B



P60 – P80



P120 – P350



## FRAMES

M-Frames



LT06 M



LT10 M

LT10 M for 2xTR



LT10 W



LT10 W for 3xTR

WX-Frames



LT10 WX

Ch-Frames



LT16 Ch

BMh-Frames



LT16 BMh

C-Frames



LT10 C

LT20 C

B-Frames



LT10 B

BM-Frames



LT10 BM

LT16 BM

## TROLLEYS

TR-Trolleys

with modular racking structures



TR800 × 600

TR1200 × 800

TR1200 × 1000

TR1600 × 1200

BR-Trolleys

with modular racking structures



BR1200 × 800

BR1200 × 1000

LT = Logistic Train **M** = M-type frame **W** = W-type frame **WX** = W-type frame with scissor tow bar system

**Ch** = C-type frame, hydraulic version **BMh** = Bridge-type frame with middle support, hydraulic version **C** = C-type frame

**B** = Bridge-type frame **BM** = Bridge-type frame with middle support **TR** = Trolley **BR** = BaseRunner Trolley

# STANDARD AND OPTIONAL EQUIPMENT

| Manufacturer's type designation/equipment |                                                                                                             | LT06 M | LT10 M | LT10 W |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------|--------|--------|
| Safety                                    | Mechanical load securing with automatic interlock after insertion                                           | ●      | ●      | ●      |
|                                           | Redundant load securing: An additional lock is activated during lift                                        | —      | —      | ●      |
|                                           | Traction interlocked when trolley lift in lowered position.                                                 | ●      | ●      | ●      |
|                                           | Lifting and lowering function deactivated when train is in motion                                           | ●      | ●      | ●      |
|                                           | Single-axle system with two wheels for compact design and improved trailing action                          | ●      | ●      | ●      |
|                                           | Weather protection with one or two opening(s) to secure the load during outdoor use (RAL 7021)              | ○      | ○      | ○      |
|                                           | Weather protection labelling (safety features or customer logo)                                             | ○      | ○      | ○      |
|                                           | Anti-slip mats on load-bearing surfaces                                                                     | ○      | ○      | ○      |
|                                           | Foot guards on right and left                                                                               | ○      | ○      | ●      |
|                                           | Safety flags (2x) for visibility and to help with orientation during the loading process                    | ○      | ○      | ○      |
| Service                                   | Fall protection (2x) between the frames                                                                     | ○      | ○      | ○      |
|                                           | Low-maintenance tiller and coupling system                                                                  | ●      | ●      | ●      |
|                                           | Maintenance-free hydraulic lifting system with synchronised lifting via both wheels <sup>1)</sup>           | ●      | ●      | ●      |
|                                           | Maintenance-free electric lifting system (patented) with synchronised lifting via both wheels <sup>1)</sup> | —      | ○      | ○      |
| Operation/load handling                   | Frame-specific spare parts list accessible by scanning the QR code on the identification plate              | ●      | ●      | ●      |
|                                           | Tiller system for even number of frames in one train (2/4 frames) <sup>2)</sup>                             | ●      | ●      | ●      |
|                                           | Tiller system for odd number of frames in one train (e.g. 3 frames) <sup>3)</sup>                           | ○      | ○      | ○      |
|                                           | Ground-level loading and unloading                                                                          | ●      | ●      | —      |
|                                           | Trolleys loaded from one side                                                                               | ●      | ●      | ●      |
|                                           | Trolleys can be loaded from either side                                                                     | —      | —      | ●      |
|                                           | Unloading of trolleys in the direction of the operator                                                      | ●      | ●      | ●      |
|                                           | Integrated ejection mechanism to provide ergonomic support during the unloading process                     | ●      | ●      | —      |
|                                           | Ergonomic support during the loading and unloading process thanks to sloped platform                        | —      | —      | ●      |
|                                           | Opening side on the left in the drive direction <sup>4)</sup>                                               | ●      | ●      | ●      |
|                                           | Opening side on the right in the drive direction <sup>4)</sup>                                              | ○      | ○      | ●      |
|                                           | Linde trolleys in various designs for use with logistic train frames                                        | ○      | ○      | ○      |
|                                           | Frame size for 1x Linde trolley TR1200 × 800/1x Linde trolley TR800 × 600 <sup>5)</sup>                     | ●      | ●      | ●      |
|                                           | Frame size for 1x Linde trolley TR1200 × 1000/1x Linde trolley TR1000 × 600 <sup>5)</sup>                   | ○      | ○      | ○      |
|                                           | Frame size for 2x Linde trolleys TR800 × 600/1x Linde trolley TR1200 × 800 <sup>6)</sup>                    | ○      | ○      | —      |
|                                           | Frame size for 2x Linde trolleys TR1000 × 600/1x Linde trolley TR1200 × 1000 <sup>6)</sup>                  | ○      | ○      | —      |
|                                           | Frame size for 3x Linde trolleys TR800 × 600/1x Linde trolley TR1200 × 800 <sup>7)</sup>                    | —      | —      | ○      |
|                                           | Frame size for 3x Linde trolleys TR1000 × 600/1x Linde trolley TR1200 × 1000 <sup>7)</sup>                  | —      | —      | ○      |
|                                           | Non-standard frame sizes for customer-specific trolleys upon request                                        | ○      | ○      | ○      |
|                                           | Lift height of 40 mm: Lifting of load by 33 mm in addition to free lift                                     | ●      | ●      | —      |
|                                           | Lift height of 40 mm: Lifting of platform, including load by 40 mm                                          | —      | —      | ●      |
|                                           | Lift height of 60 mm: Lifting of load by 53 mm in addition to free lift                                     | ○      | ○      | —      |
|                                           | Lift height of 60 mm: Lifting of platform, including load by 60 mm                                          | —      | —      | ○      |
|                                           | Automatic mode: Lifting/lowering of all frames as soon as operator enters/exits the tow tractor             | ●      | ●      | ●      |
|                                           | Connection hose with shut-off cock for decoupling and coupling of frames when lifted                        | ○      | ○      | ○      |
|                                           | Logistic Train Controller (Software) with step-by-step support for dynamic routing processes <sup>8)</sup>  | ○      | ○      | ○      |
| Electronics                               | Low-noise and low-maintenance lift motor (1x) for electric lifting function                                 | ○      | ○      | ○      |
|                                           | Modular plug-and-play connection for electric lift (protection type IP54)                                   | ○      | ○      | ○      |
| Attach-ments                              | Central load handling equipment with side insertion profiles: Locking and lifting the trolley               | ●      | ●      | —      |
|                                           | Sloped platform with side insertion profiles: Lifting the platform, including the trolley                   | —      | —      | ●      |
| Tyres                                     | Polyurethane tyres (PU; Shore hardness of 75) Ø 200 × 50, non-marking (colour: red)                         | ●      | ●      | ●      |
|                                           | Polyurethane tyres (PU; Shore hardness of 92) Ø 200 × 60, for increased load capacity                       | ○      | ○      | ○      |
|                                           | Optional electrostatic discharge tyres (ESD)                                                                | ○      | ○      | —      |
| Drive system                              | Frame compatibility: Use of LT M and LT W in one train                                                      | ●      | ●      | ●      |
|                                           | Compatibility with Linde tow tractors P40–P60 C, P40 C B and P60–P80 with appropriate preparation           | ○      | ○      | ○      |
| Lighting                                  | Tail lights (2x) – turn indicator, reverse, brake and number plate light (ISO 1724)                         | ○      | ○      | ○      |

● Standard equipment      ○ Optional equipment      — Not available

- 1) After lifting has been initiated, the complete frame together with load handling equipment is raised
- 2) The standard tiller system is comprised of one articulated tiller and one fixed tiller per pair and requires an even number of frames (two or four frames). Driving on ramps is possible with this combination
- 3) For an odd number of frames, there is an optional tiller system comprising an initial articulated tiller and fixed tillers between the frames. Important: Driving on ramps is not possible with this combination
- 4) For LT M: Retrospective modification by service technicians is possible
- 5) Flexibility: Handling of either one large trolley or one small trolley with one frame
- 6) Flexibility: Handling of either one large or two small trolleys (two storage locations) with one frame. Max. load capacity of the left/right storage location is 300 kg each. Max. load capacity of the central storage location is 1000 kg. With double loading, trolleys must not weigh more than 300 kg
- 7) Flexibility: Handling of either one large or three small trolleys (three storage locations) with one frame. Max. load capacity of the left/right storage location is 300 kg each. Max. load capacity of the central storage location is 1000 kg. In the case of triple loading, trolleys must not weigh more than 300 kg
- 8) Consulting, designing solutions and implementation as part of a separate project

# CHARACTERISTICS



Optional safety flags and fall protection for increased safety

## Safety

- Lowering interlocked during travel and traction interlocked when frames are lowered for safe handling
- Loading frame with patented fastener for reliable securing of the load
- Redundant load securing of the W-frame for double the safety while transporting goods
- Optional electric lift for increased safety and quieter operation
- Accessories such as safety flags and weather protection for optimum protection of the load



Unlocking with ergonomic ejection mechanism for LT M

## Ergonomics

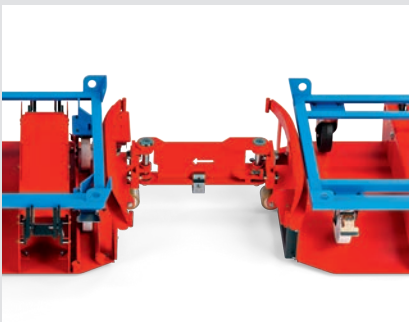
- Ground-level loading and unloading with the M-frame and sloped platform of the W-frame takes pressure off the operator
- Automatic interlock of the loading frame reduces time and effort
- Unlocking device at an ergonomic height for convenient foot operation
- Ergonomic ejection mechanism on the M-frame for fast and effortless handling



Loading and unloading on both sides with LT W

## Handling

- M-frame for lighter loads and W-frame with loading and unloading on both sides for versatility
- Compact single-axle design for high flexibility and dynamic driving performance in tight indoor spaces
- Low-weight load frame allows the tow tractor to reach higher speeds
- Automatic lifting and lowering of the load frame ensures fast load handling
- Responsive positioning guides for fast and easy handling of trolleys



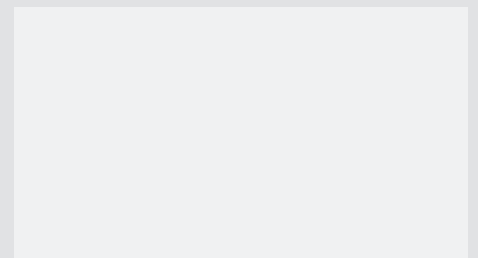
Low-maintenance tiller system

## Service

- Simple frame design with few components minimises servicing time and effort, reducing maintenance costs
- Maintenance-free tiller system for minimal service requirement and seamless functioning
- Service-friendly locking device for quick maintenance
- Optional electric lift with just one lift motor per frame for low maintenance costs

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

Presented by:



## Linde Material Handling GmbH

Carl-von-Linde-Platz | 63743 Aschaffenburg | Germany  
Tel.: +49 6021 99 0 | Fax +49 6021 99 1570  
www.linde-mh.com | info@linde-mh.com

DS\_LT06 - LT10 M/W\_8971\_en\_B\_0726