



## Tow Tractor

# P20

Capacity 2.0 t | Series 1193

**PB**

### Slim tow tractor

- Compact construction for excellent handling performance even in tight spaces
- Direct, responsive steering and a tight turning circle
- Height-adjustable, folding operator's seat for ergonomic working conditions
- Towing capacity for loads up to 2 tonnes for efficient goods transportation

# TECHNICAL DATA (according to VDI 2198)

Characteristics	1.1	Manufacturer (abbreviation)		Linde MH
	1.2	<b>Manufacturer's type designation</b>		<b>P20</b>
	1.2.a	Series		1193-00
	1.3	Drive		Battery
	1.4	Operation		Seat
	1.5	Rated capacity/rated load	Q (t)	2.0
	1.7	Rated drawbar pull	F (N)	400
	1.9	Wheelbase	y (mm)	907 <sup>1)</sup>
Weight	2.1	Service weight	kg	630 <sup>2)</sup>
	2.3	Axle loading, unladen front/rear	kg	350/280
Tyres/chassis	3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane		C+PU/C
	3.2	Tyre size, front		Ø 230 × 75
	3.3	Tyre size, rear		2 × Ø 250 × 80
	3.4	Auxiliary wheels (dimensions)		2 × Ø 100 × 40
	3.5	Wheels, number front/rear (x = driven wheels)		1x + 2/2
	3.6	Tread, front	b10 (mm)	414 <sup>1)</sup>
	3.7	Tread, rear	b11 (mm)	480
Dimensions	4.8	Seat height relating to SIP/stand height	h7 (mm)	800/985
	4.9	Height drawbar in driving position min./max.	h14 (mm)	1170/1270 <sup>1)</sup>
	4.12	Coupling height	h10 (mm)	276
	4.13	Loading height, unladen	h11 (mm)	-
	4.16	Length of loading surface	l3 (mm)	-
	4.17	Overhang	l5 (mm)	253 <sup>3)</sup>
	4.18	Width of loading surface	b9 (mm)	-
	4.19	Overall length	l1 (mm)	1315 <sup>1)</sup>
	4.21	Overall width	b1/b2 (mm)	600 <sup>1)</sup>
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	40/80 <sup>4)</sup>
4.35	Turning radius	Wa (mm)	1080 <sup>4)</sup>	
Performance data	5.1	Travel speed, laden/unladen	km/h	8/8 <sup>5)</sup>
	5.5	Drawbar pull, laden/unladen	N	400
	5.6	Max. drawbar pull, laden/unladen	N	1760
	5.7	Gradeability, laden/unladen	%	-
	5.8	Max. gradeability, laden/unladen	%	5.0/10.0 <sup>6)</sup>
	5.10	Service brake		Electro-magnetic
Electric-engine	6.1	Drive motor rating S2 60 min	kW	1.5
	6.3	Battery according to DIN 43531/35/36 A, B, C, no		2PzS-B
	6.4	Battery voltage/nominal capacity K 5	(V)/(Ah) o. kWh	24/200
	6.5	Battery weight (±5%)	kg	185
	6.6	Power consumption according to VDI cycle	kWh/h	1.21 <sup>7)</sup>
	Drive/lifting mechanism	8.1	Type of drive unit	

1) (±5 mm)

2) Figures with battery, see line 6.4/6.5.

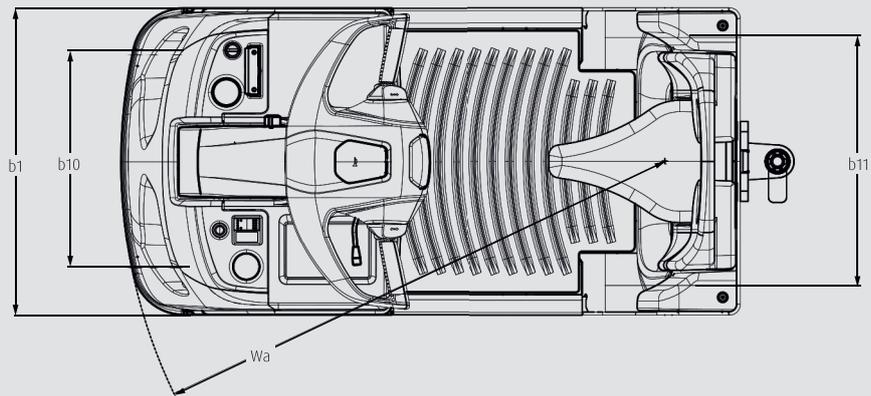
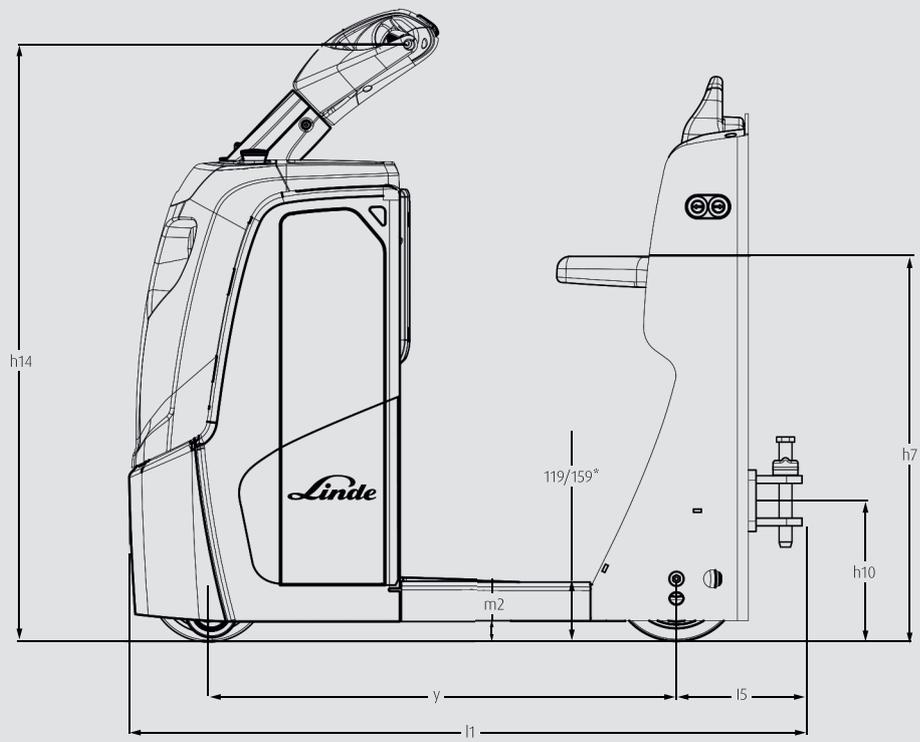
3) With single position hook

4) >=95%

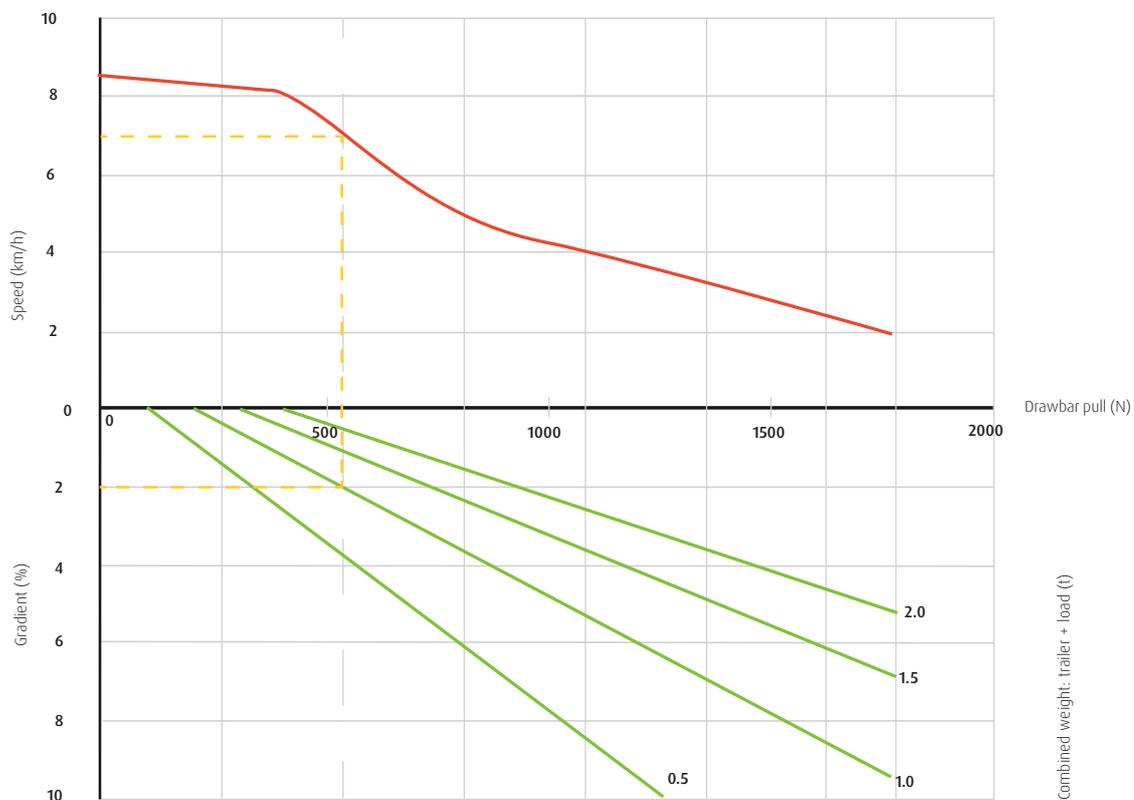
5) (±5%)

6) >=100%

7) 62 cycles



# TOW DIAGRAM



- speed (km/h)
- load (t)
- ⋯ example

The example shown illustrates a tractor that is transporting 1 t, on a ramp of 2% gradient, with a maximum driving speed of 7 km/h.

**i** For trailer loads exceeding 2.5 tons and for all trailer loads where a gradient is involved it is recommended that braked trailers are used.

# STANDARD AND OPTIONAL EQUIPMENT

Manufacturer's type designation/equipment		P20
Safety	Horn	●
	Key switch	●
	PIN code access	○
	Automatic parking brake	●
	Buzzer reverse	○
	Emergency stop button	●
Service	CAN bus architecture	●
Digitalisation	Data transmission online	○
	Data transmission Wi-Fi	○
Operation / load handling	Inching control forward/back	○
	Increased ground clearance	○
	Rearview mirrors	○
Environment	Protection -10°	●
Workplace	Multifunction display hour meter, maintenance indication, battery discharge indicator and internal fault code indication	●
	Knee protection	●
	Clipboard on battery cover	●
	Accessory bar	○
	Foldable and height adjustable seat	●
	Spacious storage compartments	●
Lighting	Front and rear LED lights	●
	Headlight, tail light, braking light and turning indicators	○
	Flashing beacon	○
Towing attachment	Traction pin 290/345/400	●
	Hitchless with screws	○
	Traction pin 300	○
	Traction pin 300 wire-guided	○
Axles and tyres	Drive wheel cushion rubber, non-marking	●
	Tandem load wheels cushion rubber, non-marking	●
	Drive wheel cushion rubber, polyurethane, polyurethane wet grip	○
Drive and brake system	Linde LAC controller	●
	1.5 kW AC motor (maintenance free)	●
	Electromagnetic brake	●
	Automatic parking brake	●
	Lateral battery change 2 Pz-B	●
	Vertical battery change 2 Pz-B	○
Energy	Built-in charger	○

● Standard equipment ○ Optional equipment

# CHARACTERISTICS



Two-handed steering unit

## Safety

- Compact chassis design protects the operator during operation
- Ergonomic two-handed steering unit for easy and safe steering movements
- Automatic parking brake for safe working on gradients
- Optional variant with more ground clearance for safe driving on uneven surfaces and ramps



Height-adjustable and folding operator's seat

## Ergonomics

- Height-adjustable and folding operator's seat for increased operator comfort over long distances
- Height-adjustable steering unit for easier operation
- Large, easy-access storage compartments for work tools



Vehicle width of only 600 mm

## Handling

- Narrow outer dimensions with a width of just 600 millimetres for manoeuvring in the tightest of spaces
- Large steering unit for easier control
- Drive wheels with large steering angle for a tight turning radius
- 1.5 kW three-phase motor for fast and continuous acceleration to top speed, even when towing trailers

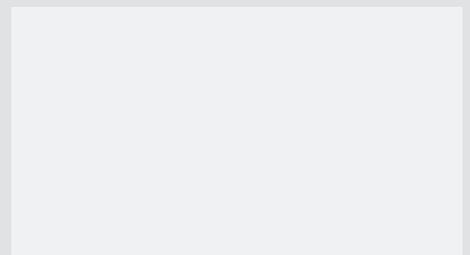


Service-friendly construction

## Service

- Maintenance-free, delete- and water-resistant three-phase motor for high availability and reduced servicing requirements
- Easy access to all important components thanks to service-friendly construction
- Comprehensive truck data check via notebook keeps service costs to a minimum and allows for precise adjustment to the respective application

Presented by:



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



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