

## Standard Equipment/Optional Equipment

### Standard Equipment

Safe, comfortable operator compartment with unique "U" shaped platform linking: scoop seat, platform and console  
 Power assisted steering with variable steering resistance  
 Positive steering (drive wheel) feedback  
 Automatic and adjustable speed reduction when cornering  
 3 kW AC motor (maintenance free)  
 Automatic electric braking  
 Electromagnetic emergency brake  
 Key switch or log-in PIN code  
 Dedicated work station (with storage compartments)  
 Removable storage compartment/bin under scoop seat  
 Fixed front clipboard

Adjustable scoop seat  
 Adjustable console and twin grip steering control  
 CAN bus technology  
 Multifunction backlit instrument display: Safety alarm, maintenance check indicator, battery charge level, hourmeter  
 Cushion rubber drive and load wheels  
 Single position hook (300 mm) or supplied with 4 mounting bolts for local fitting of towing device  
 Vertical battery change (3 or 4 PzS)  
 Horn  
 Protection to -10°C

### Optional Equipment

Manually operated hook with pull cable (300 mm)  
 3 position tow hook 290/345/400 mm  
 Towing attachment control (Forward/backward)  
 Removable storage compartment/locker under the scoop seat  
 Support for data terminal, clipboard and barcode reader (Pack n°2)  
 Front and rear working lights (LED)  
 Flashing beacon  
 Polyurethane drive wheel & cushion rubber load wheels  
 Non-marking cushion rubber drive & load wheels

Wet grip drive wheel & cushion load wheels  
 Vertical battery change 5 PzS  
 Side battery change (3 or 4 PzS)  
 Fixed battery stand for side battery change (2 battery stands)  
 Linde Connected Solutions:  
 ac:access control, an:usage analysis, dt:crash detection

Other options available on request

### Li-ION technology

Fast Full Charge  
 Opportunity Charging  
 Fast Intermediate Charging  
 Maintenance Free  
 Long Lifetime  
 Good performance in Cold Store

### Li-ION batteries

fits in 3 PzS compartment (P30 C ION, P50 C ION) with 9kWh (24V/410Ah)

### Li-ION charger

optimized 24V-Charger v255: full charging time in 2h40min (9,0 kWh)



Electric Tow Tractor with Platform  
 Capacity 3000 kg and 5000 kg  
 P 30 C, P 50 C

SERIES 1190



### Safety

The design of the tractors ensure that the operator remains well within the truck contours while driving. The ergonomic twin grip steering control incorporates a wrap-around hand guard and the front steel bumper ensure excellent safety for both operator and machine.

### Performance

The P 30 C & P 50 C are compact tow tractors particularly suited to towing applications in narrow aisles. Due to their compact nature the operator has direct access to the towing attachment located at the rear. They share common components and are both powered by a 3 kW AC motor. The P 30 C and P 50 C can tow 3,000 kg and 5,000 kg respectively.

### Comfort

The unique design of the operator's compartment offers a high level of comfort. In addition to an adjustable scoop seat and console/steering control, these tow tractors provide a unique suspended and damped "U" shape platform. This links the 3 main point of contact between operator and machine: scoop seat, platform and console and provides a superior driving experience over long travel distances or uneven floors.

## Features

### Driving system

- The unique "U" shaped operator's compartment links: console – platform – scoop seat
- Fully suspended
- Adjustable scoop seat, console and steering control
- Ergonomic, robust chassis with enclosed and protected load wheels
- Wide platform access
- Low stepping height

### Storage / Equipments

- Standard removable compartment /bin under scoop seat with front and top access (locker as an option)
- Wide storage compartment to store gloves, documents...
- Storage compartment on the console to store pencils, adhesive tape...
- Wide compartments under the console for wrapping paper...



### Tow Hook options

- Different hooks available: Single position, 3 positions and manually operated hook with pull cable operated without leaving the work station
- Optional inching control on both sides enables easy and safe operation (forward/backward)



### Power steering

- Proportional, self centring, power-assisted steering for effortless, precise operations
- Adjustable steering resistance and positive steering feedback ensures the truck is always on track
- Automatic speed reduction when cornering



### AC Motor

- Powerful, smooth 3 kW at 100% performance
- Moisture and dust-proof motor, maintenance-free
- No rollback on uphill starting
- Maximum speed of 10 km/h, whether the truck is laden or unladen (8 km/h for P 50 C)

### Console and Linde twin grip steering control

- Ergonomically designed console incorporates steering control, clipboard, emergency isolator CAN bus plug and Linde Digital Information Display (hourmeter, battery discharge indicator, warning and information display)
- Adjustable in height, the console provides controls and instrumentation

### CAN bus connectivity

- Intelligent electronic management of all components for rapid and easy diagnosis
- All performance parameters can be accurately adjusted by the service technician to suit each individual application



### Comprehensive energy solutions

- Range of Lead Acid batteries from 2,13kWh to 8,88 kWh (375-625Ah)
- Battery locking system for side change option secures battery compartment and assists the battery change
- Li-ION battery with 9,0 kWh (410Ah)

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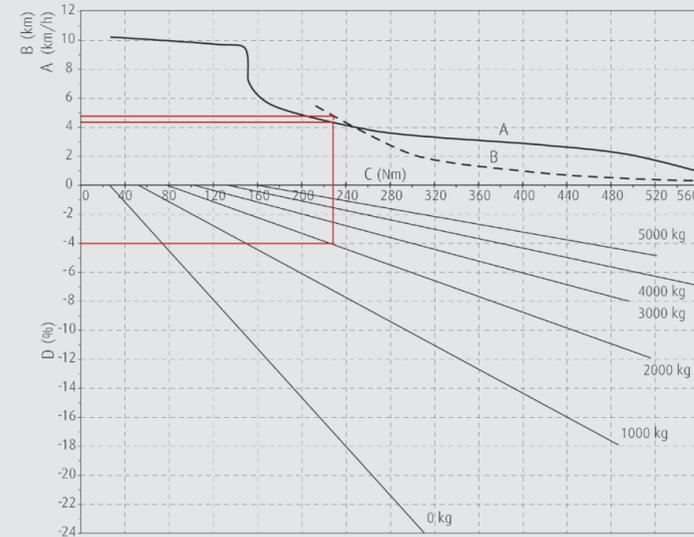
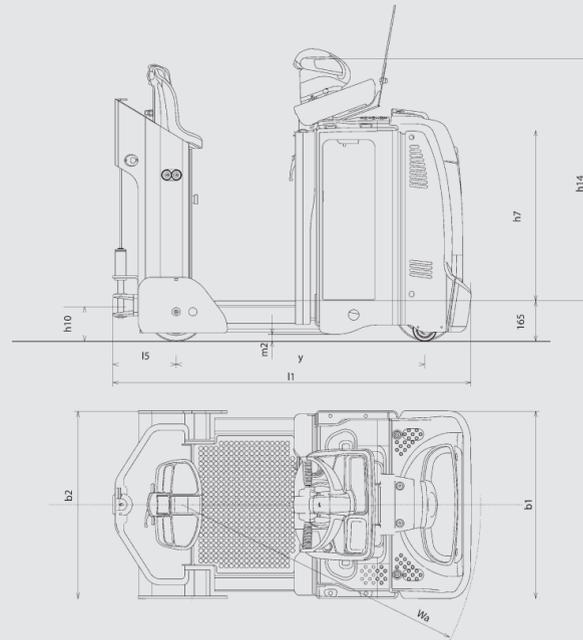
Subject to modification in the interest of progress. Illustrations and technical details could include options and not binding for actual constructions. All dimensions subject to usual tolerances.

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# Technical Data according to VDI 2198

		LINDE	
		P30C / [P30C ION]	P50C / [P50C ION]
Characteristics	1.1 Manufacturer		LINDE
	1.2 Model designation		<b>P30C / [P30C ION]</b>
	1.2a Series		1190-00
	1.3 Power unit		Battery
	1.4 Operation		Stand on
Weights	1.5 Load capacity/Load	Q (t)	3.0
	1.7 Rated tractive force	F (N)	1800
Wheels/Tyres	1.9 Wheelbase	y (mm)	1050 <sup>1)</sup>
	2.1 Service weight	(kg)	1020 [1157] <sup>2)3)</sup>
	2.3 Axle load without load, front/rear	(kg)	584 / 436 [662 / 495] <sup>4)</sup>
	3.1 Tyres rubber, SE, pneumatic, polyurethane		V+P/P <sup>5)</sup>
	3.2 Tyre size, front		Ø 254 x102
	3.3 Tyre size, rear		2x Ø 250 x 80
	3.4 Auxiliary wheels (dimensions)		2x Ø 100 x 40
	3.5 Wheels, number front/rear (x = driven)		1x + 2 / 2
	3.6 Track width, front	b10 (mm)	544 <sup>1)</sup>
	3.7 Track width, rear	b11 (mm)	675 <sup>1)</sup>
Dimensions	4.8 Height of seat/stand on platform	h7 (mm)	710 / 910
	4.9 Height of tiller arm in operating position, min/max	h14 (mm)	1020 / 1120
	4.12 Towing coupling height	h10 (mm)	300 / 290 / 345 / 400
	4.19 Overall length	l1 (mm)	1500 <sup>4)5)</sup>
	4.21 Overall width	b1/b2 (mm)	790 / 790 <sup>1)</sup>
	4.32 Ground clearance, centre of wheelbase	m2 (mm)	40
Performance	4.35 Turning radius	Wa (mm)	1230 <sup>7)</sup>
	4.36 Minimum pivoting point distance	b13 (mm)	-
Drive	5.1 Travel speed, with/without load	(km/h)	10 / 10 <sup>9)</sup>
	5.5 Tractive force, with/without load	(N)	1800
	5.6 Maximum tractive force, with/without load	(N)	4000
	5.7 Climbing ability, with/without load	(%)	5.0 / 24.0
	5.8 Maximum climbing ability, with/without load	(%)	8.0 / 24.0
	5.9 Acceleration time, with/without load	(s)	6.7 / 4.6
	5.10 Service brake		Electro-magnetic
	6.1 Drive motor, 60 minute rating	(kW)	3
	6.3 Battery according to DIN 43531/35/36 A,B,C,no		43535/B [Li-ION]
	6.4 Battery voltage/rated capacity (5h)	(V/Ah)	24 / 345/375 [24/ 410] <sup>2)</sup>
Others	6.5 Battery weight (± 5%)	(kg)	287 [151]
	6.6 Power consumption according to VDI cycle	(kWh/h)	0.95
	8.1 Type of drive control		LAC
	8.4 Sound pressure level at the driver's seat	(dB(A))	< 70
	8.5 Towing coupling, design/type, DIN 15 170		--

1) (± 5 mm)  
 2) Figures in [ ] with Li-ION battery see line 6.4  
 3) Figures with battery, see line 6.4/6.5.  
 4) (± 10%)  
 5) Solid rubber + polyurethane / polyurethane  
 6) ± 10mm with hook  
 7) ± 0 mm = 3 PzS lateral; + 100 mm = 3 PzS vertical and 4PzS lateral;  
 + 150 mm = 4 PzS vertical; + 225 mm = 4 PzS vertical  
 8) (± 5%)



a	Distance (km)
b	Speed (km/h)
c	Gradient (%)
d	Torque on the drive wheel (Nm)



The example shows illustrates:  
 A tractor towing 2 t load, operating on a ramp of 4%.  
 Max. travelling speed reachable = 4,3 km/h, length of the ramp = 4,9 km