

Standard Equipment/Optional Equipment

Standard Equipment

New standard features	Electronics
Wide product range: P 60+P 80 tractors, W 08 load transporter	Linde high frequency AC traction controller is sealed against the ingress of dust and water
Superb ergonomics and spacious drivers compartment	Sealed and reverse polarity protected connectors ensure excellent vibration proof contact
Power setting Efficiency	Digital interactive display indicating battery discharge status, working hours, travel speed (km/h), Power setting adjustment, driving direction, indicators, and further information for optional equipment
Two stage travel speed selection	Safety
Generous storage compartments	Four independent braking systems:
Auxiliary power supply socket (12 V) in dashboard	Regenerative electric braking as accelerator released
Key switch, or alternatively PIN Code access	Automatic electro-magnetic parking brake
Resilient cushioning and swinging arm suspension on all three wheels	Gradient hold control & start assist without roll-back
General	Self adjusting hydraulic drum brakes on all three wheels
Three wheel configuration for optimum manoeuvrability	Constant speed on gradients
Excellent stability	Emergency circuit isolator
Side battery exchange, 48V circuit	Duplicated fail-to-safe-circuitry
Single pedal accelerator and direction lever	Electric horn
Adjustable PVC covered seat	Electrical overload protection for motor/controller temp.
Pneumatic tyres	
4,5 kW sealed AC drive motor	
Rear multi-position towing coupling	
Standard colour scheme – vermilion and charcoal grey	

Optional Equipment

Linde Curve Speed Assist	Pedestrian traction buttons (forward traction only) on both sides of the chassis for order picking applications
Lighting systems (bulb or LED)	Front tubular mounting for optional equipment such as mirrors, pad holder, data terminals etc.
Deluxe seat with mechanical suspension	Vertical pole at the rear for optional equipment such as beacon, bin etc.
Deluxe Super Comfort with air suspension and heating	Several modular cabin versions (sun protection, roof+screens, plus flexi doors, plus full metal doors, plus cabin heating)
Dead man footswitch	Batteries and chargers
Variable energy saving/performance parameter modes (Economy, Efficiency, Performance) for individual applications	48V DIN batteries up to 375 Ah capacity
Various towing couplings for the rear and front (incl. extension and electrical remote)	Efficient and safe side changing design
Metal front protection shield	Various optional changing methods including battery on rollers
Load backrest (load transporter)	Range of chargers to suit the battery and application
Rail for tractor platform	Battery roll-off adapter
Eyelets for load fixation (optional for tractor, standard for load transporter)	
Individual travel speed reduction	
Audible warning in reverse	
Inching control (forward & backwards) on both sides at the rear chassis	



Tractor P 60 + P 80
Capacity 6000 kg + 8000 kg
Load transporter W 08
Capacity 800 kg

Series 1191



Safety

Heavy-duty steel chassis and rugged upper structure with rounded profiles protects driver. Four independent braking systems provide effective braking in all situations. Emergency isolator. Electric horn. Duplicated fail-to-safe electronic circuits and excellent all-round visibility. Automatic, electro-magnetic parking brake.

Performance

A powerful 4.5 kW sealed AC drive motor for impressive pulling power and up to 20 km/h unladen speed. Latest energy efficient Linde electronic control delivers seamless travelling and manoeuvrability.

Comfort

Easy access and exit is ensured with ergonomic, non-slip steps and wide access openings on either side with smoothly curved profiles. The spacious angled foot well and generous legroom, adjustable seat, intuitive automotive control levers, adjustable steering wheel and ergonomic pedal layout provide an optimum working environment for every individual operator. Resilient mountings and swinging arm suspension on all three wheels.

Features

- Chassis**

 - Heavy duty, profiled chassis
 - Rugged, impact resistant top section
 - Steel cased carrying platform
 - Ergonomic rounded profile design
 - Resilient cushioning and swinging arm suspension system front & rear
- Steering**

 - Precise responsive steering
 - Large lock to lock angle
 - Unique adjustable steering column to suit every size of driver
 - Precision travelling and manoeuvring



- Braking**

 - Four independent braking systems:
 - Regenerative electric braking
 - Self-adjusting hydraulic drum brakes on all wheels
 - Automatic electromagnetic parking brake
 - Automatic gradient assist start (No roll-back)
- Operator's compartment**

 - Superbly spacious and ergonomic drivers compartment
 - Non-slip step and wide access on both sides
 - Spacious foot well and leg room
 - Ergonomic, automotive pedal layout
 - Automotive style intuitive control levers
 - Adjustable seat
- Towing couplings**

 - Rear multi-position towing coupling as standard
 - Optional types of front and rear towing couplings
 - Optional automatic couplings

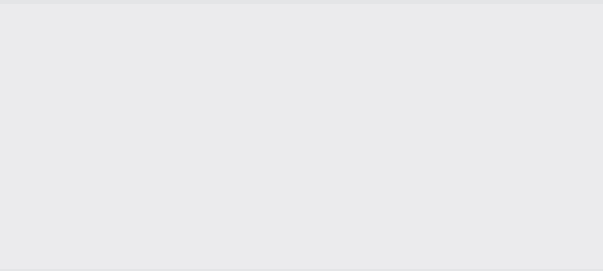


- Controller**

 - Exceptionally energy efficient Linde digital controller
 - Smooth, precision control of travel and manoeuvring
 - Programmable performance parameters
 - Delivers optimum versatility and efficiency to the 4.5 kW sealed AC drive motor
- Batteries and chargers**

 - 48V DIN batteries up to 375 Ah capacity
 - Efficient and safe side changing design
 - Various optional changing methods including battery on rollers
 - Range of chargers to suit the battery and application
- Serviceability**

 - Easy service access to all key components
 - Extended operational uptime between scheduled services
 - Low maintenance design
 - Digital display assists charging and maintenance planning
 - Diagnostic computer port (CAN bus system)

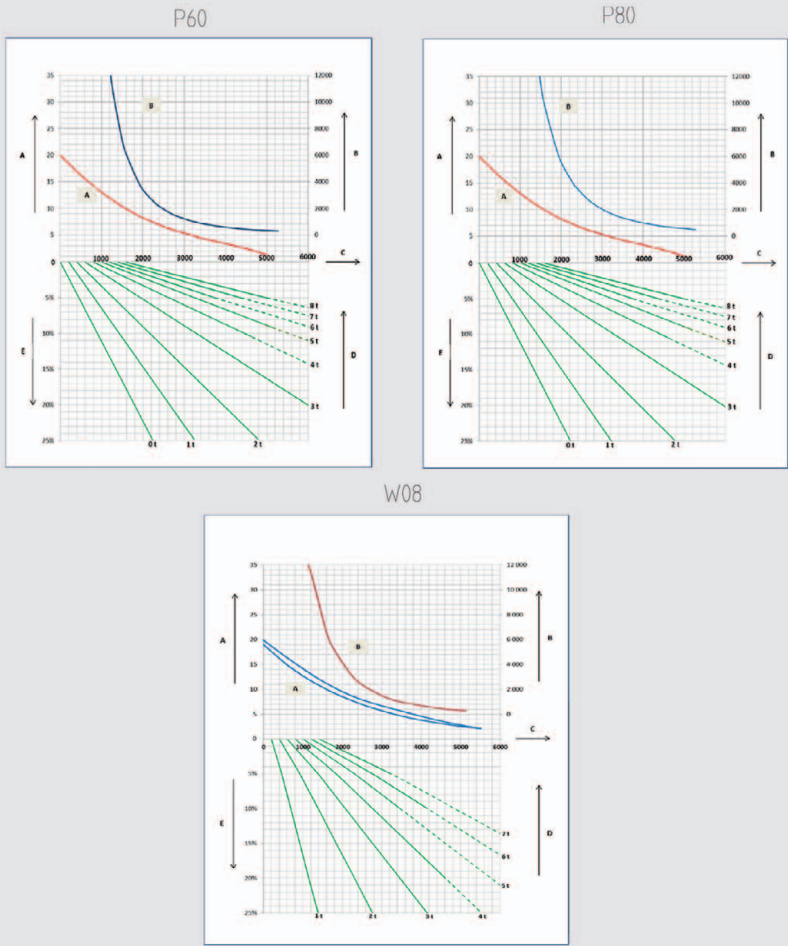


Technical Data according to VDI 2198

Characteristics	1.1	Manufacturer		LINDE	LINDE	LINDE
	1.2	Model designation		P60	P80	W08
	1.2a	Series		1191-00	1191-00	1191-00
	1.3	Power unit		Battery	Battery	Battery
	1.4	Operation		Seat	Seat	Seat
	1.5	Load capacity/Load	Q (t)	0.15 / 6.0 ¹⁾	0.15 / 8.0 ¹⁾	0.8 / 7.0
	1.7	Rated tractive force	F (N)	1200	1600	1400
Weights	1.9	Wheelbase	y (mm)	1190 ²⁾	1190 ²⁾	1795 ²⁾
	2.1	Service weight	(kg)	1260 (1515) ^{3) 4)}	1280 (1535) ^{3) 4)}	1230 (1485) ^{3) 4)}
Wheels/Tyres	2.3	Axle load without load, front/rear	(kg)	550 / 710 (662 / 853) ⁴⁾	560 / 720 (672 / 863) ⁴⁾	590 / 640 (750 / 735) ⁴⁾
	3.1	Tyres rubber, SE, pneumatic, polyurethane		Pneumatic	Pneumatic	SE
	3.2	Tyre size, front		4.00-8 / 6PR	4.00-8 / 6PR	125/75-8
	3.3	Tyre size, rear		4.00-8 / 6PR	4.00-8 / 6PR	125/75-8
	3.5	Wheels, number front/rear (x = driven)		1 / 2x	1 / 2x	1 / 2x
	3.6	Track width, front	b10 (mm)	0 ²⁾	0 ²⁾	0 ²⁾
	3.7	Track width, rear	b11 (mm)	860 ²⁾	860 ²⁾	860 ²⁾
Dimensions	4.7	Height of overhead guard (cabin)	h6 (mm)	2070 ²⁾	2070 ²⁾	2070 ²⁾
	4.8	Height of seat/stand on platform	h7 (mm)	1020	1020	1055
	4.12	Towing coupling height	h10 (mm)	270, 325, 380 ²⁾	270, 325, 380 ²⁾	270, 325, 380 ²⁾
	4.13	Platform height, unladen	h11 (mm)	645	645	680
	4.16	Loading platform, length	l3 (mm)	520	520	1595
	4.17	Rear overhang	l5 (mm)	350	350	840
	4.18	Loading platform, width	b9 (mm)	900 ²⁾	900 ²⁾	900 ²⁾
	4.19	Overall length	l1 (mm)	1830 ²⁾	1830 ²⁾	2955 ²⁾
	4.21	Overall width	b1/b2 (mm)	996 ²⁾	996 ²⁾	996 ²⁾
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	135 ⁵⁾	135 ⁵⁾	135 ⁵⁾
	4.35	Turning radius	Wa (mm)	1650 ⁶⁾	1650 ⁶⁾	2230 ⁶⁾
	4.36	Minimum pivoting point distance	b13 (mm)	600	600	600
Performance	5.1	Travel speed, with/without load	(km/h)	12 / 20	10 / 20	11 / 20
	5.5	Tractive force, with/without load	(N)	-	-	-
	5.6	Maximum tractive force, with/without load	(N)	-	-	-
	5.7	Climbing ability, with/without load	(%)	see performance graph	see performance graph	see performance graph
	5.8	Maximum climbing ability, with/without load	(%)	see performance graph	see performance graph	see performance graph
Drive	5.10	Service brake		Electric/hydraulic	Electric/hydraulic	Electric/hydraulic
	6.1	Drive motor, 60 minute rating	(kW)	4.5 (AC)	4.5 (AC)	4.5 (AC)
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531 / A	43 531 / A	43 531 / A
	6.4	Battery voltage/rated capacity (5h)	(V/Ah)	48 / 375	48 / 375	48 / 240 ⁷⁾
	6.5	Battery weight (± 5%)	(kg)	560	560	394
Others	8.1	Type of drive control		Electronic/stepless	Electronic/stepless	Electronic/stepless
	8.4	Noise level at operator's ear	(dB(A))	60	60	60
	8.5	Towing coupling, design/type, DIN 15 170		see option list	see option list	see option list
1) Based on level, dry surface with rolling resistance of 200N/t. Refer to graph for specific operating conditions and when the application involves inclines or ramps.				5) (± 2 mm)		
2) (± 5 mm)				6) (± 20 mm)		
3) (± 10 kg)				7) With 48/375 Ah reduced travel speed		
4) Values in parenthesis with cabin						



Performance charts



Information

Load / gradient combinations shown by full line can be restarted from stationary on the gradient. The permissible haul per hour is the total distance travelled, including the return journey and any downhill gradients. It is recommended that braked trailers are used for trailer loads exceeding 2.5 tonne and for all trailer loads where a gradient is involved.

