

Diesel Forklift Trucks for Explosion-hazard Areas 2000 to 3000 kg

H 20 Ex
H 25 Ex
H 30 Ex



351

The Linde H 20 Ex, H 25 Ex and H 30 Ex diesel forklift trucks designed for use in explosion-hazardous areas, are derived from the standard truck range H 20, H 25 and H 30. These specialised versions therefore incorporate the same optimized performance and quality as the standard-production models: advanced engineering, exemplary ergonomics, long life, and economic operation.

The Ex-trucks conform to ATEX European Directive 94/9 EC (EN 1755, EN 1834) or international regulations for use in explosion-hazardous areas.

They are type-tested by the Institut National de l'Environnement Industriel et des Risques – INERIS.

Linde offers Ex- specified trucks for use in the following classified areas:

- Zone 1 IIB T4 Atex to 94/9EC to Ineris Certificate No. 15447 X/00
- Zone 2 IIB T4 Atex to 94/9EC
- Zone 1 IIB T4 to Ineris Certificate No. 12201/94
- Areas requiring explosive materials protection to ZH 1/168

The key components of these explosion-proof trucks are identical with the corresponding standard Linde models. The following description details the modifications incorporated to comply with Zoned applications.

Ergonomic operator compartment

Same standard of comfort as in Linde standard models. Instrument panel with enclosed displays and switches. Regulation protected design for optional cab and heater when specified.

Special engine version

Water-cooled Perkins diesel specially modified for service in explosion-hazardous atmospheres. Leading items are:

- Explosion-proof starter and generator (Class d enclosure)
- Flame arrester in intake
- Cooling water, hydraulic oil and exhaust gas temperature monitoring with automatic high-temperature cut-out
- Heat exchanger to cool exhaust gases
- Flame trap in exhaust
- Spark arrester in exhaust tailpipe
- Protected packaged electrical system

No modification needed to transmission and brakes

The standard hydrostatic transmission installed in these trucks is ideally suited for their specialized application. All drive and brake components are integrated within the housing of this innovative transmission, which is explosion-proof by design.

The separate parking brake is an oil-immersed disk brake well proven in the standard truck versions and needs no modification. Oil temperature is monitored by a supplementary thermostat.

Hydrostatic transmission provides outstanding advantages in operation: infinitely variable power transmission, millimetre-accurate working, wear-eliminating deceleration and braking, optimized reliability all around, and high economy achieved through low running costs.

Wide selection of masts

High-visibility standard, duplex and triplex masts to answer the needs of the job. Plastic cleats on the chains protect the jack piston rods. Forks are in brass-surfaced steel construction.

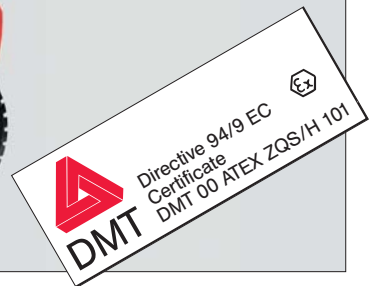
Standard equipment

Combination dry-type intake air cleaner, hydraulic suction filter, power steering, multi-display instrument with operating hours meter and indicators for all main truck functions, electrically conductive tyres, front superelastic 27x10–12, rear 23x9–10. Standard mast, lift height $h_3 = 3250$ mm, fork carriage width $b_1 = 1150$ mm, fork length $l = 1000$ mm.

Options

Standard masts from 2850 to 5550 mm lift, full free-lift duplex masts from 2920 to 4450 mm lift, full free-lift triplex masts from 4425 to 6475 mm lift, higher lifts on request. Single or dual supplementary hydraulic services for all masts, working in conjunction with automatic engine speed control. Non-standard fork carriage widths, load backrest, alternative fork lengths. Engine air pre-cleaner. Cab options including enclosed roof, windscreen, side and rear panels, explosion-proof electric front and rear screen wipers, cab heater. Explosion-proof truck lighting, explosion-proof work lamps. Front twin wheels, supercushion tyres on pneumatic tyre rims. Alternative paintwork. Container version (roof height 2070 mm). Elevated operator position for handling bulky loads (seat 300 mm higher, roof height 2550 mm).

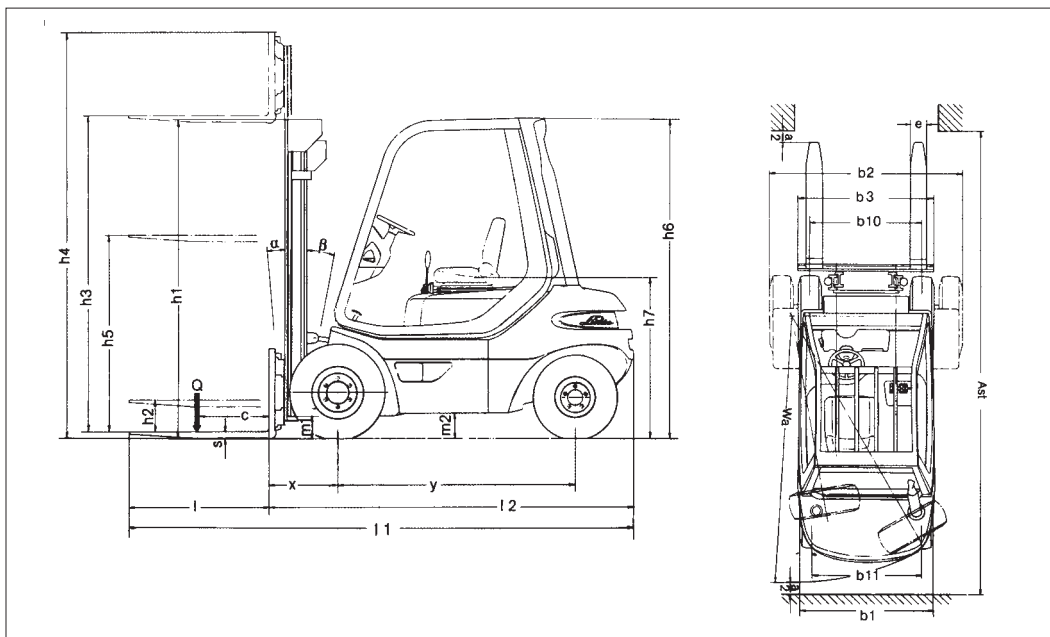
Other options on request.



Characteristics	Linde		Linde	Linde	Linde	
	H20 D Ex		H25 D Ex	H30 D Ex		
1.1	Manufacturer		Linde	Linde	Linde	
1.2	Model designation		H20 D Ex	H25 D Ex	H30 D Ex	
1.3	Power unit: battery, diesel, petrol, LP gas, mains power		Diesel	Diesel	Diesel	
1.4	Operation: manual, pedestrian, stand-on, seated, order picker		Seated	Seated	Seated	
1.5	Load capacity	Q (kg)	2000	2500	3000	
1.6	Load centre	c (mm)	500	500	500	
1.8	Axle centre to fork face	x (mm)	482	482	487	
1.9	Wheelbase	y (mm)	1695	1695	1785	
Weight	2.1	Service weight	kg	4490	4945	
	2.2	Axle load with load, front / rear	kg	4885 / 1442	5606 / 1180	6985 / 960
	2.3	Axle load without load, front / rear	kg	2015 / 2419	2015 / 2419	2290 / 2655
Wheels and Tyres	3.1	Tyres, front/ rear (SE = CS superelastic, L = pneumatic ³⁾)	SE (P) / SE (P) ¹⁾	SE (P) / SE (P) ¹⁾	SE (P) / SE (P) ¹⁾	
	3.2	Tyre size, front	27 x 10 - 12 ⁴⁾	27 x 10 - 12 ⁴⁾	27 x 10 - 12 ⁴⁾	
	3.3	Tyre size, rear	23 x 9 - 10 ⁴⁾	23 x 9 - 10 ⁴⁾	23 x 9 - 10 ⁴⁾	
	3.5	Wheels, number front/ rear (x = driven)	2 (4) / 2	2 (4) / 2	2 (4) / 2	
	3.6	Track width, front	b10 (mm)	1053	1053	1053
3.7	Track width, rear	b11 (mm)	932	932	932	
Dimensions	4.1	Mast / fork carriage tilt, forward / backward	α/β (°)	5/10	5/10	5/10
	4.2	Height of mast, lowered	h1 (mm)	2305 ²⁾	2305 ²⁾	2305 ²⁾
	4.3	Free lift	h2 (mm)	150	150	150
	4.4	Lift	h3 (mm)	3250	3250	3250
	4.5	Height of mast, extended	h4 (mm)	3885	3885	4035
	4.7	Height of overhead guard (cabin)	h6 (mm)	2250	2250	2250
	4.8	Height of seat / stand-on platform	h7 (mm)	1135	1135	1135
	4.12	Towing coupling height	h10 (mm)	-	-	-
	4.19	Overall length	l1 (mm)	3599	3599	3615
	4.20	Length to fork face	l2 (mm)	2599	2599	2682
	4.21	Overall width	b1/b2 (mm)	1308	1308	1308
	4.22	Form dimensions	s/e/l (mm)	51 x 106 x 1000	51 x 106 x 1000	51 x 131 x 1000
	4.23	Fork carriage to DIN 15173, class / form A, B		2 A	2 A	3 A
	4.24	Width of fork carriage	b3 (mm)	1150	1150	1150
	4.31	Ground clearance, mast	m1 (mm)	130	130	130
4.32	Ground clearance, centre of wheelbase	m2 (mm)	165	165	165	
4.33	Aisle width with pallets 1000 x 1200 across forks	Ast (mm)	3952	3952	4002	
4.34	Aisle width with pallets 800 x 1200 along forks	Ast (mm)	4152	4152	4202	
4.35	Turning radius	Wa (mm)	2270	2270	2315	
4.36	Minimum between the centres of rotation distance	b13 (mm)	580	580	580	
Performance	5.1	Travel speed, with / without load	km/h	18/18	18/18	18/18
	5.2	Lifting speed, with / without load	m/s	0.48/0.50	0.48/0.48	0.48/0.48
	5.3	Lowering speed, with / without load	m/s	0.55/0.52	0.55/0.52	0.55/0.52
	5.5	Tractive force, with / without load, 60 minute rating	N	-	-	-
	5.7	Climbing ability, with / without load, 30 minute rating	%	20/22	20/22	17/22
	5.9	Acceleration time, with / without load (first 10 m)	s	5.4/4.9	5.6/4.9	6.3/5.3
5.10	Service brake		Hydrostatic	Hydrostatic	Hydrostatic	
I.C-engine	7.1	Manufacturer of engine / type		Perkins 3.152.4	Perkins 3.152.4	Perkins 3.152.4
	7.2	Engine rated power to ISO 1585	kW	32	32	32
	7.3	Rated speed	rpm	2250	2250	2250
	7.4	Number of cylinders / Displac. ccm	cm ³	3/2500	3/2500	3/2500
	7.5	Fuel consumption to VDI	l/h	-	-	-
Others	8.1	Type of drive control		Hydrostatic / stepless	Hydrostatic / stepless	Hydrostatic / stepless
	8.2	Working pressure for attachments	bar	170 ⁵⁾	170 (185) ⁵⁾	200 (215) ⁵⁾
	8.3	Oil quantity for attachments	l/min	-	-	-
	8.4	Mean noise level at driver's ear	dB (A)	79	79	79
	8.5	Towing coupling, design / type DIN, no		-	-	-

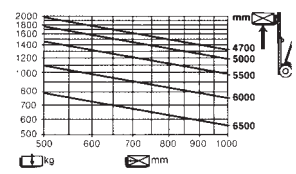
1) Figures in brackets = optional.
2) With 150 mm free lift.
3) Electrically conducting.

4) Optional Pneumatic-tyres.
5) At triplex masts.

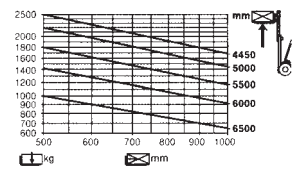


Lifting capacity diagrams:

H 20



H 25



H 30

