

Diesel- and LPG-engined lift trucks 2000 to 3500 kg carrying capacity

Linde

H 20
H 25
H 30
H 35



351-03

Linde H20 – H35 forklift trucks are the perfect choice for a wide range of applications:

The combination of high engine torque and controlled Linde hydrostatic transmission is synonymous with high productivity. Equipped with diesel and LPG engines specially designed to meet highest demands and ensure outstandingly low exhaust emissions and pollution levels. Cockpit of extremely functional and accomplished ergonomic design in which the operator feels fully comfortable on the job. Long servicing intervals and small maintenance requirements characteristic of these trucks accumulate in low operating cost.

High-comfort operator compartment

Linde knows what ergonomic design is really about:

- Comfortable suspension and hydraulic cushioning of the seat. Fully adjustable to the operator's body size and weight.
- Compartment fully isolated from the truck body, ensuring pleasant working conditions throughout the working shift by greatly reducing exposure to vibration and noise.
- Twin drive pedals – no need for separate brake pedal.
- Single control lever for load lifting/lowering and mast forward/back tilting.

- Multi-function hydraulic control lever for lift, lower and mast tilt, automatic engine speed-up governed according to hydraulic power demand.
- Driver's module and overhead guard form an integrated unit capable of being built up to a fully enclosed cab.

Rugged chassis

Expert engineering design and high-quality materials of construction guarantee a chassis capable of withstanding the stresses of heavy use in harsh conditions. Chassis enclosed on all sides to protect internal components and minimize noise level.

Optimized engine

The Diesel- and LPG-engines are specifically designed for the utilization in the new truck range. High torque and low rpm result in low fuel consumption, emission and noise levels. On the Diesel engines, there is very little exhaust smoke, below Bosch 2.5 even at full load.

Automatic engine speed adjustment

Engine speed is adjusted automatically to actual power requirement by hydraulic control, resulting in greater fuel efficiency, reduced exhaust emissions and better operator comfort.

Hydrostatic transmission

The fully automatic, high-efficiency hydrostatic transmission enables smooth, jerk-free control of travelling speed, acceleration and deceleration; due to its operating principle, it integrates the service brake function and does away with clutch, gear shift, differential and drum-type mechanical brakes.

Anti-kick steering

The hydrostatic power steering has zero kick-back and virtually no free play. Steering effort is a low 20N which made it possible to use a high-maneuvrability (300 mm diameter) steering wheel.

Excellent visibility

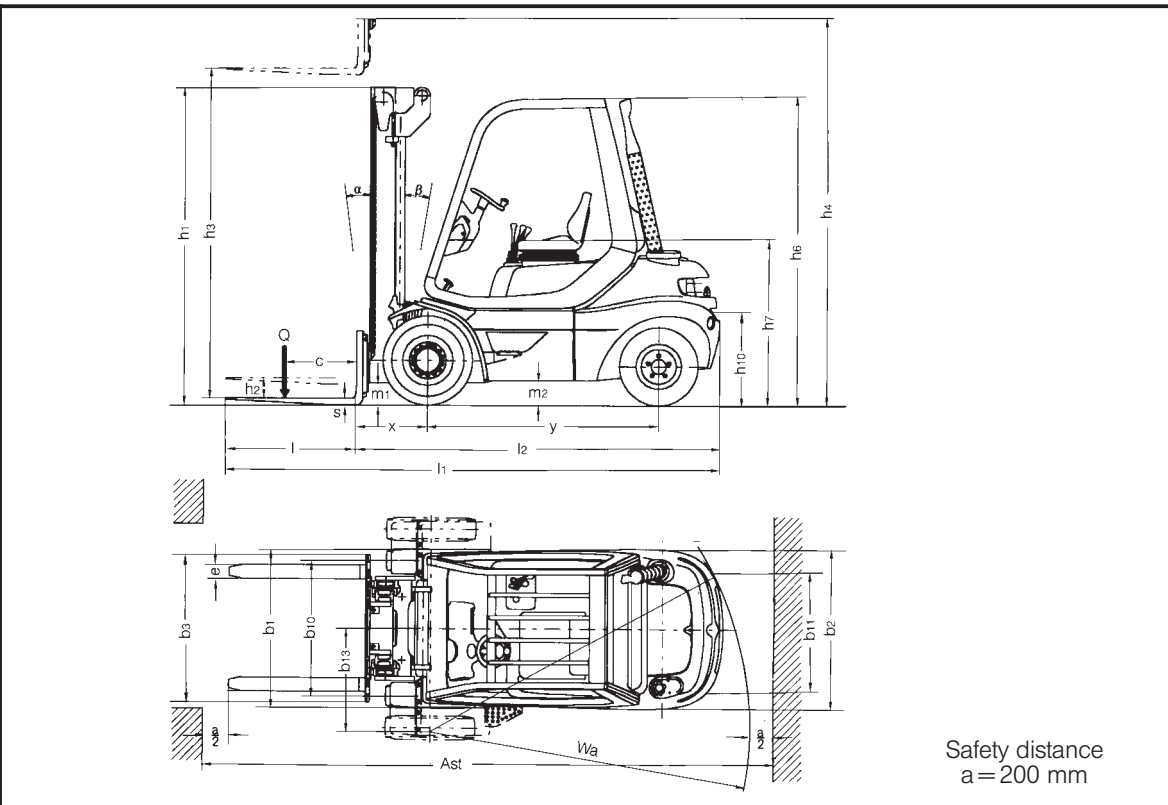
Mast optimized for visibility to provide the operator with superb forward view, contributing to high safety. Clear-view masts available in standard, duplex and triplex designs.

Non-wearing brakes

Truck is braked by the hydrostatic transmission, entirely without mechanical wear. No drum brake required. Integrated multi-disk parking brake engages automatically when the engine is cut and does not incur any wear.

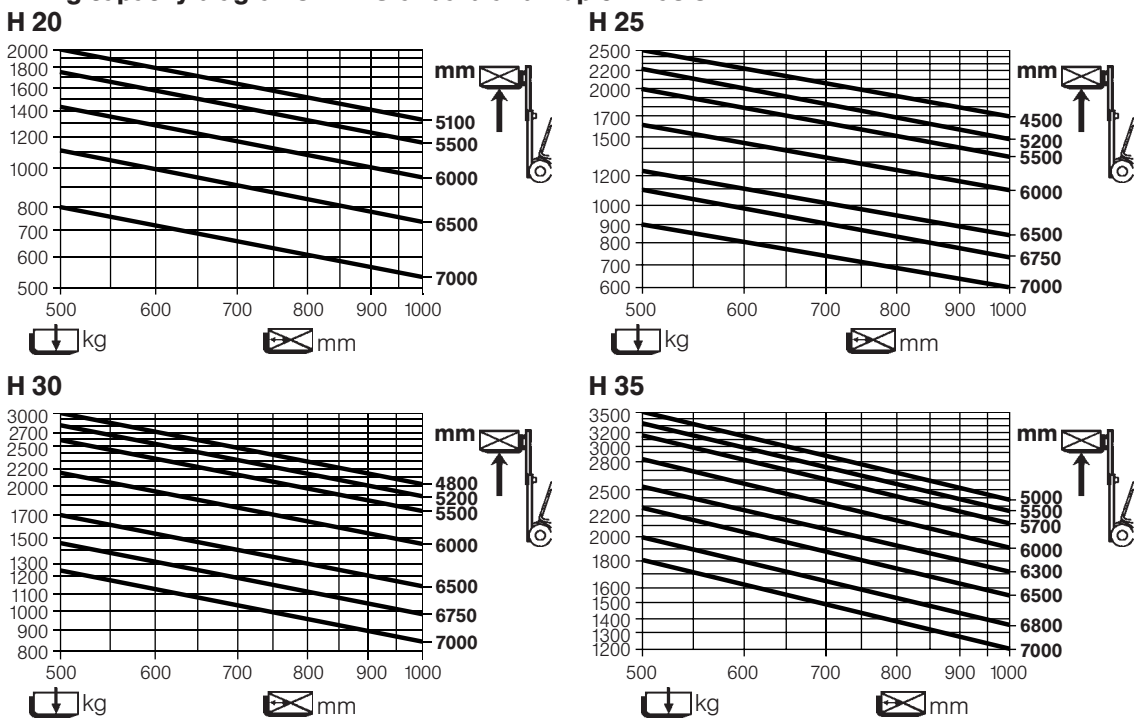
LINDE		Forklift trucks		Data sheet for material handling equipment						DFC	
July 2002		Designation acc. to VDI 2198								Abbreviation acc. to	
Characteristics	1.1	Manufacturer	Linde		Linde			Linde			
	1.2	Model designation	H 20 D	H 20 T	H 25 D	H 25 T	H 25 T	H 30 D	H 30 T		
	1.3	Power unit: battery, diesel, petrol, LP gas, mains power	Diesel	LPG	Diesel	LPG	LPG	Diesel	LPG		
	1.4	Operation: Manual, stand-on, seated	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)	520	520	520	520	523			
	1.9	Wheelbase	y (mm)	1695		1715			1785		
	Weights	2.1	Service weight	kg	3895	3675	4350		4140	4895	
2.2		Axle load with load, front / rear	kg	5190/705	5010/665	6175/675		6015/625	7105/985		
2.3		Axle load without load, front / rear	kg	1975/1920	1780/1845	2090/2260		1950/2190	2285/2610		
Wheels and tyres	3.1	Tyres: solid rubber, superelastic, pneumatic	SE / SE 1)		SE / SE 1)			SE / SE 1)			
	3.2	Tyre size, front	700 - 12 1)		700 - 12 1)			27 x 10 - 12 1)			
	3.3	Tyre size, rear	6.50 - 10 1)		6.50 - 10 1)			23 x 9 - 10 1)			
	3.5	Wheels, number front / rear (x = driven)	2 (4) x/2 1) 4)		2 (4) x/2 1) 4)			2 (4) x/2 1) 4)			
	3.6	Track width, front	b10 (mm)	990 (1220) 1) 4)		990 (1220) 1) 4)			1053 (1220) 1) 4)		
	3.7	Track width, rear	b11 (mm)	942		942			932		
	Dimensions	4.1	Mast lift, forward / backward	deg.	5/9 2)		5/9 2)			5/9 2)	
4.2		Height of mast, lowered	h1 (mm)	2254 5) (2222) 3)		2254 5) (2222) 3)			2248 5) (2275) 3)		
4.3		Free lift	h2 (mm)	150 (1574) 3)		150 (1574) 3)			150 (1474) 3)		
4.4		Lift	h3 (mm)	3050 (4655) 3)		3050 (4655) 3)			3050 (4855) 3)		
4.5		Height of mast, extended	h4 (mm)	3707 (5303) 3)		3707 (5303) 3)			3851 (5656) 3)		
4.7		Height of overhead guard	h6 (mm)	2250		2250			2250		
4.8		Height of seat	h7 (mm)	1135		1135			1135		
4.12		Towing coupling height	h10 (mm)	650		650			650		
4.19		Overall length	l1 (mm)	3637		3657			3736		
4.20		Length of fork face	l2 (mm)	2637		2657			2736		
4.21		Overall width	b1/b2 (mm)	1164 (1623) 4)		1164 (1623) 4)			1300 (1623) 4)		
4.22		Fork dimensions	s/e/l (mm)	45 x 100 x 1000		45 x 100 x 1000			45 x 100 x 1000		
4.23		Fork carriage to DIN 15173, class/form A, B		2A		2A			3A		
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)	160		160			160		
4.33		Aisle width with pallet 1000 x 1200 across forks	Ast (mm)	3990		4010			4083		
4.34		Aisle width with pallet 800 x 1200 along forks	Ast (mm)	4190		4210			4283		
4.35	Turning radius	Wa (mm)	2270		2290			2360			
4.36	Minimum pivoting point distance	b13 (mm)	580		580			580			
Performance	5.1	Travel speed, with / without load	km/h	21/22	21/21	21/22		21/21	22/23		
	5.2	Lifting speed, with / without load	m/s	0.55/0.58	0.52/0.54	0.54/0.58		0.51/0.53	0.52/0.57		
	5.3	Lowering speed, with / without load	m/s	0.52/0.47		0.52/0.47			0.53/0.46		
	5.5	Tractive force, with / without load	N	13500/13500		15800/15800			16100/16400		
	5.7	Climbing ability, with / without load	%	22/32	23/32	22/31		23/30	19/30		
	5.9	Acceleration time, with / without load	s	5.8/4.8		6.0/5.0			6.2/5.2		
	5.10	Service brake		Hydrostatic		Hydrostatic			Hydrostatic		
Drive	7.1	Engine manufacturer / type		Perk. 903.27	Renault F3R-264	Perk. 903.27	Perk. G 903.27	Renault F3R-264	Perk. 903.27	Perk. G 903.27	
	7.2	Engine performance according to ISO 1585	kW	35	34	35	36	34	35	36	
	7.3	Rated speed	min ⁻¹	2100	2500	2100		2500	2100		
	7.4	Number of cylinders / displacement	cm ³	3/2700	4/1998	3/2700		4/1998	3/2700		
	7.5	Fuel consumption according to VDI cycle	l/h; kg/h	2.3		2.5	2.4	2.4	2.7		
Other	8.1	Type of drive control		Hydrost. infinitely variable		Hydrost. infinitely variable			Hydrost. infinitely variable		
	8.2	Working pressure for attachments	bar	150 (160) 3)		175 (185) 3)			200 (205) 3)		
	8.3	Oil flow for attachments	l/min	34	29	34		29	34		
	8.4	Noise level at operator's ear	dB (A)	76	75.5	76	76	75.5	76		
	8.5	Towing coupling, design/type, DIN, no		DIN 15170-H		DIN 15170-H			DIN 15170-H		
1) For tyre alternatives see tables on pages 2 - 3.				Tyres (special tyres and widths available upon request)							
2) Lift height and equipment can change the rearwards mast lift.				Type	Pneumatic		SE		Type	Pne	
3) Figures in brackets refer to duplex and triplex masts.				H20/25	front	rear		front	rear	H30	front
4) Figures in brackets refer to front twin tyres 700-12.					700-12/16	6.5-10/10		700-12	23x9-10		700-12/16 Zw
5) With 150 mm free lift.					700-12/16 Zw.	23x9-10/14		700-12 Zw.	6.50-10		27x10-12/14
					27x10-12/14			27x10-12			28x9-15/14
					28x9-15/14					H35	700-12/16 Zw
											27x10-12/20

VDI 2198	
Linde	
H 35 D	H 35 T
Diesel	LPG
Seated	
3500	
500	
528	
1850	
5500	
8020/980	
2510/2990	
SE / SE ¹⁾	
28 x 12.5 - 15 ¹⁾	
23 x 9 - 10 ¹⁾	
2 (4) x 2 ¹⁾ ⁴⁾	
1042 (1255) ¹⁾ ⁴⁾	
932	
5/9 ²⁾	
2247 ⁵⁾ (2224) ³⁾	
150 (1424) ³⁾	
3050 (4715) ³⁾	
3850 (5515) ³⁾	
2250	
1135	
650	
3805	
2805	
1336 (1658) ⁴⁾	
50 x 120 x 1000	
3A	
1300	
130	
160	
4158	
4358	
2430	
580	
22/23	
0.46/0.51	
0.49/0.41	
18500/18900	
19/29	
6.4/5.4	
Hydrostatic	
P. 903.27 HR	Perk. G.903.27
39	
2250	
3/2700	
2.9	
Hydrost. infinitely variable	
215 (225) ³⁾	
30	
78	
DIN 15170-H	



Safety distance
a = 200 mm

Lifting capacity diagrams with Standard and Duplex masts:



Lifting capacity diagrams valid with SE-tyres

Standard (in mm)		H20/25					H30					H35				
Lift	h3	2850	3050	3450	4050	4550	2850	3050	3450	4050	4550	2850	3050	3450	4050	4550
Height of mast, lowered	h1	2154	2254	2454	2754	3004	2148	2248	2448	2748	2998	2147	2247	2447	2747	2997
Height of mast, extended	h4	3507	3707	4107	4707	5207	3651	3851	4251	4851	5351	3650	3850	4250	4850	5350
Free lift	h2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150

Duplex (in mm)		H20/25			H30			H35		
Lift	h3	2865	3165	3665	2915	3215	3715	2920	3220	3720
Height of mast, lowered	h1	2072	2222	2472	2075	2225	2475	2074	2224	2474
Height of mast, extended	h4	3513	3813	4313	3716	4016	4516	3720	4020	4520
Free lift	h2	1424	1574	1824	1274	1424	1674	1274	1424	1674

Triplex (in mm)		H20/25					H30					H35				
Lift	h3	4265	4655	5305	5905	6555	4315	4705	5355	5955	6605	4325	4715	5365	5965	6615
Height of mast, lowered	h1	2072	2222	2472	2672	2922	2075	2225	2475	2675	2925	2074	2224	2474	2674	2924
Height of mast, extended	h4	4913	5303	5953	6553	7203	5116	5506	6156	6756	7406	5125	5515	6165	6765	7415
Free lift	h2	1424	1574	1824	2024	2274	1274	1424	1674	1874	2124	1274	1424	1674	1874	2124

Alternative lift heights and figures for triplex masts on request.

Pneumatic rear	SE	
	front	rear
23x9-10/14	700-12 Zw.	23x9-10
	27x10-12	23x9-10
	28x9-15	23x9-10
23x9-10/14	700-12 Zw.	23x9-10
28x12.5-15		

Equipment



Safety first

The standard truck versions satisfy all current Safety Regulations. The following features are of particular importance:

- Outstanding ergonomic qualities for minimum driver fatigue.
- Routine deceleration and service braking by the automatic transmission.
- Parking brake automatically engaged when the engine is switched off.
- Low noise levels: Instructions and acoustic signals are easily discernible.
- As a matter of course on all Linde trucks: High stability, excellent panoramic visibility and fully hydrostatic power steering.

Standard equipment

- Adjustable suspension-type comfort seat with hydraulic damping.
- Linde twin-pedal drive and multi-function hydraulic control lever to govern lifting, lowering and mast tilt without operators having to move from one control to another.
- Combination dry-type intake air filter.
- Suction-type hydraulic filter.

- Power steering.
- Combi-instrument on dashboard incorporating operating hour meter and control lights for all important truck functions.
- SE Tyres.
- Standard lift mast: Lift height $h_3 = 3050$ mm.
- Fork arms $l = 1000$ mm.
- Fork carriage width $b_3 = 1150$ mm.
- LPG with two-way catalytic exhaust gas converter.

Optional equipment

- Standard lift masts, lift heights 2850 to 5550 mm.
- Duplex lift masts (full free lift), lift heights 2865 to 4520 mm.
- Triplex lift masts (full free lift), lift heights 4265 to 6615 mm.
- Other masts and lift heights on demand.
- Integrated sideshift.
- Load backrest.
- One or two additional hydraulic circuits available for all mast types, control incorporates automatic engine speed up.

- Fork carriage widths 1300 mm (H30 and H35) and 1600 mm (H20 to H35).
- Various non-standard fork lengths.
- Dust filter ahead of standard air intake filter.
- Possibility for cab build-up in stages: Windscreen, top screen, side and rear screens, doors.
- Screenwipers front and rear.
- Heating installation.
- Truck lighting.
- Working lights.
- Upgrading for use on the public highway.
- Special paint.
- Container version (height of overhead guard 2070 or 2150 mm).
- Seat height from ground increased by 300 mm, enabling transport of large-volume and high loads (height of overhead guard 2550 mm).
- Particulate filter (Diesel engines).
- Three-way catalytic converter (LPG engines).

Other options available on demand.