



Diesel Forklift Trucks Capacity 10000 to 18000 kg H 100, H 120, H 140, H 150, H 160, H 180

SERIES 359

Safety

Perfect load control and manoeuvrability in close surroundings is assured at all times. Linde achieves this by placing the cabin in a forward, optimised position to allow maximum through-mast visibility to the fork tip and load. The visibility around the machine from the operator position is optimised by the utilisation of generous glass panels to the top, rear and sides, and also the curved widescreen which provides continued uninterrupted visibility around to the sides screens.

Performance

The finely tuned hydrostatic drive system ensures precision in operation balanced with optimised speed of performance. The stepless drive system ensures that acceleration through to top speed is without mechanical intervention, therefore providing smooth operation. The precision in operation of the hydrostatic system ensures that the operator is able to engage the load with precision, therefore limiting impact shock to the load.

Comfort

The operators cabin is mounted to a tilting frame on high density rubber mounts, this ensures that drive and power train vibration, together with operational vibrations are suppressed to provide the operator with a comfortable working place. The operators seat is provided with pneumatic damping for additional cushioning.



Linde Material Handling

Linde

Reliability

The proven reputation of the hydrostatic drive systems coupled together with the power unit provide peace of mind for the drive system; the mast and lifting device has been thoroughly tested for endurance and security in operation, to ensure a long operational life.

Productivity

With the utilisation of the world-class hydrostatic drive system, speed and precision in operation is assured, the operational characteristics of the twin pedal drive system, and Linde Load Control hydraulic operators controls, ensure that minimal operator movement is required to operate the machine, thereby saving time and limiting operator fatigue.

Technical data

Characteristics	1.1	Manufacturer		LINDE	LINDE	LINDE
	1.2	Model designation		H 100	H 120	H 140
	1.3	Power unit: battery, diesel, LP gas, mains power		Diesel	Diesel	Diesel
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		Rider seated	Rider seated	Rider seated
	1.5	Load capacity	Q (kg)	10,0	12,0	14,0
	1.6	Load centre	c (mm)	600	600	600
	1.8	Axle centre to fork face	x (mm)	850	850	910
	1.9	Wheelbase	y (mm)	2900	2900	2900
	Weights	2.1	Service weight	kg	16812	17640
2.2		Axle load with load, front/rear	kg	23636/3168	26445/3199	30679/4246
2.3		Axle load without load, front/rear	kg	9344/7468	9193/8447	10402/10519
Wheels & tyres	3.1	Tyres, front/rear. SE = (superelastic), P = (pneumatic)		P/P	P/P	P/P
	3.2	Tyre size, front		10.00 x 20/16 pr	10.00 x 20/16 pr	12.00 x 20/20 pr
	3.3	Tyre size, rear		10.00 x 20/16 pr	10.00 x 20/16 pr	12.00 x 20/20 pr
	3.5	Wheels, number, front/rear (x = driven)		4x/2	4x/2	4x/2
	3.6	Track width, front	b10 (mm)	1874	1874	1874
	3.7	Track width, rear	b11 (mm)	1767	1767	1767
Dimensions	4.1	Mast/fork carriage/truck tilt, forward/backward	α/β (°)	5/10	5/10	5/10
	4.2	Height of mast lowered	h1 (mm)	4329	4329	4661
	4.3	Free lift	h2 (mm)	150	150	150
	4.4	Lift	h3 (mm)	6000	6000	6000
	4.5	Height of mast extended	h4 (mm)	7329	7329	7661
	4.7	Height of overhead guard (cabin)	h6 (mm)	2905	2905	2950
	4.8	Height, operators seat/stand-on platform	h7 (mm)	1740	1740	1774
	4.12	Towing coupling height	h10 (mm)	515	515	550
	4.19	Overall length	l1 (mm)	5669	5669	5842
	4.20	Length to fork face	l2 (mm)	4518	4518	4692
	4.21	Overall width	b1/b2 (mm)	2535/2545	2535/2545	2535/2545
	4.22	Fork dimensions	s/e/l (mm)	70 x 180 x 1150	70 x 180 x 1150	90 x 180 x 1150
	4.23	Fork carriage		Hyd Fork Posn	Hyd Fork Posn	Hyd Fork Posn
	4.24	Width of fork carriage	b3 (mm)	2545	2545	2545
	4.25	Fork spread, minimum/maximum	b5 (mm)	630/2370	630/2370	650/2390
	4.31	Ground clearance, mast	m1 (mm)	172	172	200
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	255	255	288
	4.33	Aisle width with pallets 1000 x 1200 crosswise	Ast (mm)	6192	6192	6347
	4.34	Aisle width with pallets 800 x 1200 lengthwise	Ast (mm)	-	-	-
	4.35	Turning radius	Wa (mm)	3992	3992	4087
4.36	Minimum pivoting point distance	b13 (mm)	1228	1228	1228	
Performance	5.1	Travel speed, with/without load	km/h	27.8/29.7	27.8/29.7	29.7/30.0
	5.2	Lift speed, with/without load	m/s	0.54/0.56	0.54/0.56	0.43/0.45
	5.3	Lowering speed, with/without load	m/s	0.54/0.54	0.54/0.54	0.54/0.54
	5.5	Tractive force, with/without load	kN	69,4	69,4	86,7
	5.8	Climbing ability, with/without load	%	24,5	22,56	26,8
	5.9	Acceleration time, with/without load	s	5,0	5,0	5,0
	5.10	Service brake		Hydrostatic	Hydrostatic	Hydrostatic
6.4	Battery voltage, rated capacity	V/Ah	24V (2x 12/130)	24V (2x 12/130)	24V (2x 12/130)	
Drive	7.1	Engine manufacturer/type		Cummins QSB 5.9-30-TAA	Cummins QSB 5.9-30-TAA	Cummins QSB 5.9-30-TAA
	7.2	Engine performance according to ISO 1585	kW	129	129	129
	7.3	Rated speed	1/min	2300	2300	2300
	7.4	Number of cylinders/displacement	/cm ³	6/5900	6/5900	6/5900
	7.5	Fuel consumption - average	l/h	-	-	-
Other	8.1	Type of drive control		Hydrost./infin. Variable	Hydrost./infin. Variable	Hydrost./infin. Variable
	8.2	Working pressure for attachments	bar	250	250	250
	8.3	Oil flow for attachments	l/min	-	-	-
	8.4	Noise level, at operator's ear, Overhead guard/Cab	dB (A)	-	-	-
	8.5	Trailer coupling, design/type DIN	Ø (mm)	50	50	50

LINDE	LINDE	LINDE	LINDE	LINDE	LINDE
H150	H160	H180	H120	H140	H160
Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Rider seated	Rider seated	Rider seated	Rider seated	Rider seated	Rider seated
15,0	16,0	18,0	12,0	14,0	16,0
600	600	600	1200	1200	1200
910	910	910	910	963	963
2900	3300	3300	3300	3300	3600
21545	21149	21741	21431	23878	24703
31854/4696	32885/4269	35433/4313	29514/3920	33634/4248	36222/4485
10083/11462	10527/10622	10211/11530	11026/10405	11780/12098	11937/12766
P/P	P/P	P/P	P/P	P/P	P/P
12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr
12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr	12.00 x 20/20 pr
4x/2	4x/2	4x/2	4x/2	4x/2	4x/2
1874	1874	1874	1874	1874	1874
1767	1767	1767	1767	1767	1767
5/10	5/10	5/10	5/10	5/10	5/10
4661	4661	4661	4661	4661	4661
150	150	150	150	150	150
6000	6000	6000	6000	6000	6000
7661	7661	7661	7661	7661	7661
2950	2950	2950	2950	2950	2950
1774	1774	1774	1774	1774	1774
550	550	550	550	550	550
5842	6242	6242	7492	7545	7845
4692	5092	5092	5092	5145	5445
2535/2545	2535/2545	2535/2545	2535/2545	2535/2545	2535/2545
90 x 180 x 1150	90 x 180 x 1150	90 x 180 x 1150	90 x 180 x 2400	100 x 200 x 2400	100 x 200 x 2400
Hyd Fork Posn	Hyd Fork Posn	Hyd Fork Posn	Hyd Fork Posn	Hyd Fork Posn	Hyd Fork Posn
2545	2545	2545	2545	2545	2545
650/2390	650/2390	650/2390	650/2390	660/2400	660/2400
200	200	200	200	200	200
288	288	288	288	288	288
6347	6774	6774	-	-	-
-	-	-	8024	8077	8366
4087	4514	4514	4514	4514	4803
1228	1386	1386	1386	1386	1430
29.7/30.0	29.7/30.0	29.7/30.0	29.7/30.0	29.7/30.0	29.7/30.0
0.43/0.45	0.43/0.45	0.35/0.36	0.43/0.45	0.43/0.45	0.43/0.45
0.54/0.54	0.54/0.54	0.54/0.54	0.54/0.54	0.54/0.54	0.54/0.54
86,7	86,7	86,7	86,7	86,7	86,7
26,8	26,8	26,8	23	21	21
5,0	5,0	5,0	5,0	5,0	5,0
Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic
24V (2x 12/130)	24V (2x 12/130)	24V (2x 12/130)	24V (2x 12/130)	24V (2x 12/130)	24V (2x 12/130)
Cummins QSB 5.9-30-TAA	Cummins QSB 5.9-30-TAA	Cummins QSB 5.9-30-TAA	Cummins QSB 5.9-30-TAA	Cummins QSB 5.9-30-TAA	Cummins QSB 5.9-30-TAA
129	129	129	129	129	129
2300	2300	2300	2300	2300	2300
6/5900	6/5900	6/5900	6/5900	6/5900	6/5900
-	-	-	-	-	-
Hydrost./infin. Variable	Hydrost./infin. Variable	Hydrost./infin. Variable	Hydrost./infin. Variable	Hydrost./infin. Variable	Hydrost./infin. Variable
250	250	250	250	250	250
-	-	-	-	-	-
-	-	-	-	-	-
50	50	50	50	50	50

Mast variations – Standard

Double non-free lift clearview tilting masts with carriage

H 100 / H 120															
h ₃	Lift		3090	3500	4000	4500	5000	5500	6000	6500	7000				
h _{3+s}	Lift Height														
h ₂	Free Lift		150	150	150	150	150	150	150	150	150				
h ₁	Height of mast, lowered		2875	3080	3330	3580	3830	4080	4330	4580	4830				
h ₄	Height of mast, extended		4420	4830	5330	5830	6330	6830	7330	7830	8330				
	Tilt forward/back		5/7	5/7	5/10	5/10	5/10	5/10	5/10	5/10	5/10				
					2 High 9'6" on Sidelift beam						3 High 9'6" on Sidelift beam				

H 140 / H 150 / H 160 / H 180 / H 120 / 1200															
h ₃	Lift	2430	3000	3500	4000	4500	5000	5500	6000	6500	7000				
h _{3+s}	Lift Height														
h ₂	Free Lift	150	150	150	150	150	150	150	150	150	150				
h ₁	Height of mast, lowered	2875	3160	3410	3660	3910	4160	4410	4660	4910	5160				
h ₄	Height of mast, extended	4090	4660	5160	5660	6160	6660	7160	7660	8160	8660				
	Tilt forward/back	5/6	5/7	5/9	5/10	5/10	5/10	5/10	5/10	5/10	5/10				
					2 High 9'6" on Sidelift beam						3 High 9'6" on Sidelift beam				

H 140 / 1200 / H 160 / 1200																
h ₃	Lift	2430	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500
h _{3+s}	Lift Height															
h ₂	Free Lift	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
h ₁	Height of mast, lowered	2875	3160	3410	3660	3910	4160	4410	4660	4910	5160	5410	5660	5960	6160	6410
h ₄	Height of mast, extended	4090	4660	5160	5660	6160	6660	7160	7660	8160	8660	9160	9660	10160	10660	11160
	Tilt forward/back	5/6	5/7	5/9	5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10	5/10
					2 High 9'6" on Sidelift beam						3 High 9'6" on Sidelift beam					4 High 9'6" on Sidelift beam

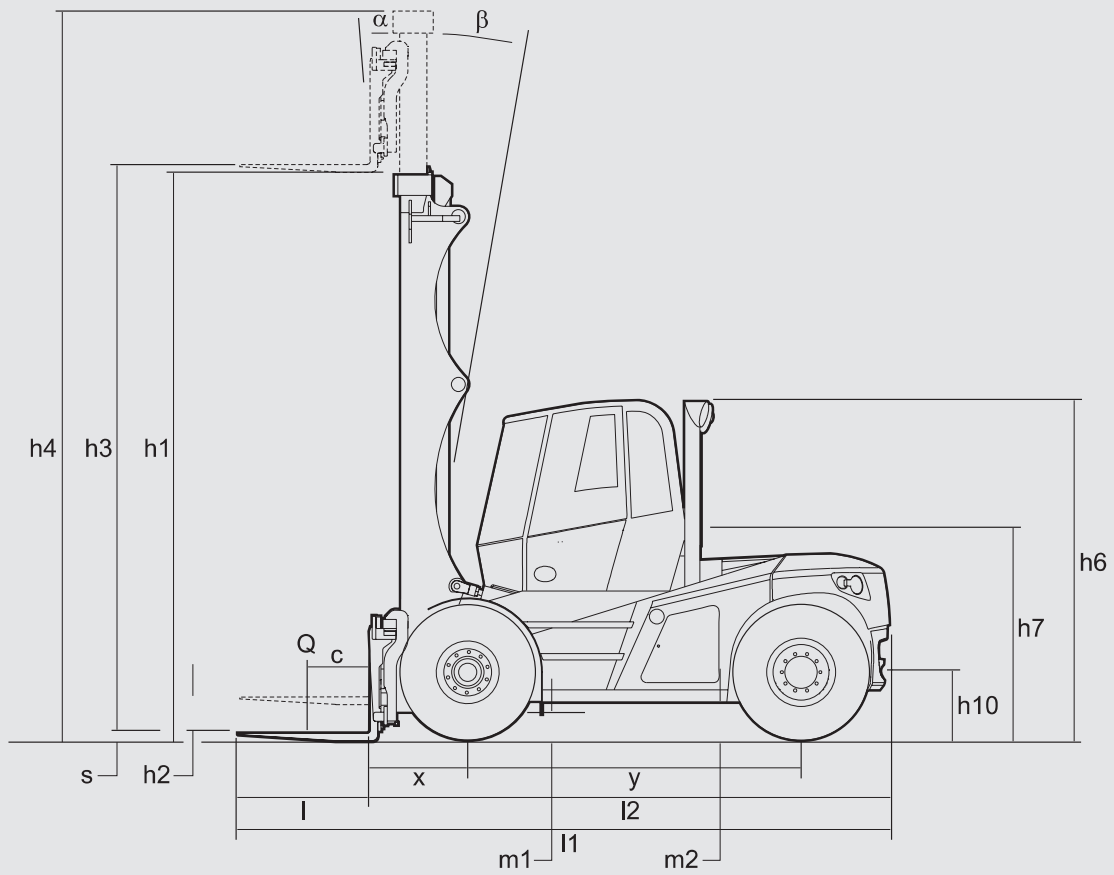
Mast variations – Duplex

Duplex free lift clearview tilting masts with carriage

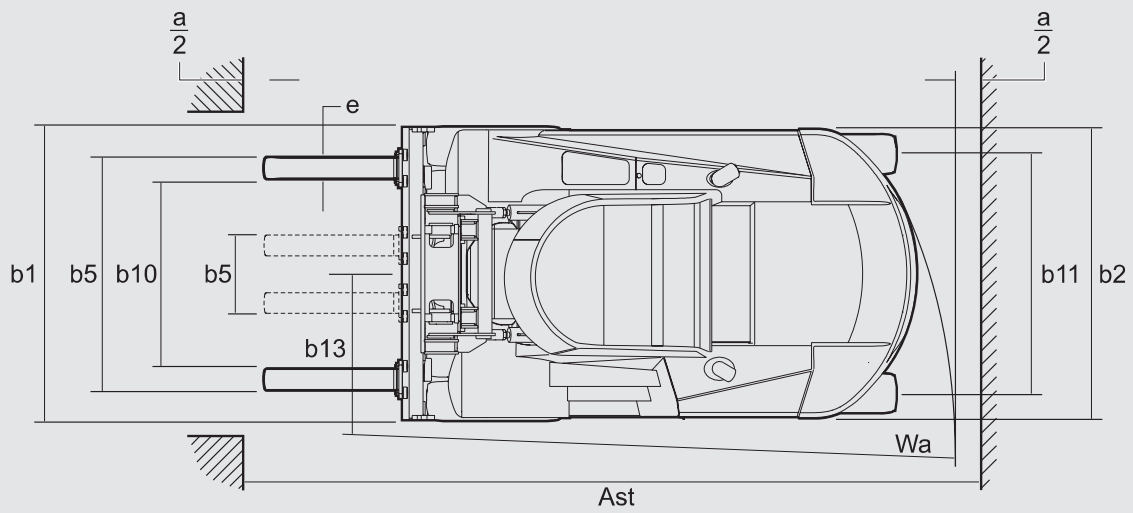
H 100 / H 120															
h ₃	Lift		3000	3500	4000	4500	5000	5500	6000	6500	7000				
h _{3+s}	Lift Height														
h ₂	Free Lift		1390	1640	1890	2140	2390	2640	2890	3140	3390				
h ₁	Height of mast, lowered		2950	3200	3450	3700	3950	4200	4450	4700	4950				
h ₄	Height of mast, extended		4570	5080	5580	6080	6580	7080	7580	8080	8580				
	Tilt forward/back		5/7	5/7	5/10	5/10	5/10	5/10	5/10	5/10	5/10				
					2 High 9'6" on Sidelift beam						3 High 9'6" on Sidelift beam				

H 140 / H 150 / H 160 / H 180 / H 120 / 1200															
h ₃	Lift	2580	3000	3500	4000	4500	5000	5500	6000	6500	7000				
h _{3+s}	Lift Height														
h ₂	Free Lift	1220	1500	1750	2000	2250	2500	2750	3000	3250	3500				
h ₁	Height of mast, lowered	2950	3160	3410	3660	3910	4160	4410	4660	4910	5160				
h ₄	Height of mast, extended	4240	4660	5160	5660	6160	6660	7160	7660	8160	8660				
	Tilt forward/back	5/6	5/7	5/9	5/10	5/10	5/10	5/10	5/10	5/10	5/10				
					2 High 9'6" on Sidelift beam						3 High 9'6" on Sidelift beam				

H 140 / 1200 / H 160 / 1200															
h ₃	Lift	2580	3000	3500	4000	4500	5000	5500	6000	6500	7000				
h _{3+s}	Lift Height														
h ₂	Free Lift	1220	1500	1750	2000	2250	2500	2750	3000	3250	3500				
h ₁	Height of mast, lowered	2950	3160	3410	3660	3910	4160	4410	4660	4910	5160				
h ₄	Height of mast, extended	4240	4660	5160	5660	6160	6660	7160	7660	8160	8660				
	Tilt forward/back	5/6	5/7	5/9	5/10	5/10	5/10	5/10	5/10	5/10	5/10				
					2 High 9'6" on Sidelift beam						3 High 9'6" on Sidelift beam				



$$\frac{a}{2} = 100$$



Safety distance $a = 200\text{mm}$

Standard equipment/Optional equipment

Standard equipment

Operational overhead guard height 2950 mm
Hydraulic-suspension comfort-class seat with wide range of adjustment
Lockable, underseat storage box
Document storage bin – left side of seat
Linde twin drive pedals to control truck travel
Linde Load Control for low-effort precision control of all mast functions
Fixed angle steering wheel
Demand-controlled hydrostatic power steering, fuel-economizing, easy and precise response
Engine intake air cleaner with integral safety element
High-performance hydraulic filter preserving maximum purity of oil for long life of all hydraulic components
Electrically operated tilting loadguard for service access
Back-up, manual hydraulic pump for tilting loadguard
Floor, mat

Single control lever – Lift/tilt operation, variable position type
Single control lever – Fork position operation, gated type
Glarefree display including fuel gauge, clock, hour meter, servicing information and control lamps for all important truck functions
Abundant storage space for writing materials, beverage cans, etc.
Pneumatic tyres
Standard mast, lift height h3 = 4000 mm
Fork carriage, width b3 = 2545 mm
Manual fork carriage system
Pin-type mounted forks
Fork carrier to suit standard pin-type or hook-on forks
Internal rear-view mirror
Audible warning reverse alarm
Standard Linde paint scheme

Options

Single drive pedal in combination with direction selector in armrest
Standard masts, 2430 mm to 9500 mm lift height (model specific, refer to mast table)
Duplex masts (full free lift), 2580 mm to 7000 mm lift height (model specific, refer to mast table)
Integral forkpositioner
Single and double auxiliary hydraulics for all mast types
Alternative fork lengths
Hook-on type forks
Flat face carrier
Alternative carriage widths – 3000 mm, 3500 mm, 4000 mm, 4500 mm
Overhead guard add-ons – Front screen, top window, rear window
Screen wiper-washers for front, rear and roof screens
Cabin with front, top and rear washer/wipers with heater
Deluxe cabin with climate control, heated seat, adjustable steering column, roof and front screen blinds, front, top and rear washer/wipers
Reverse driving position – 180 degrees (only available with Delux cabin)

Seat incorporating air suspension with compressor
Individual levers – lift and tilt
Individual levers – Forkspread and sideshift
Gated lever – additional hydraulic service
Individual levers – additional hydraulic service
Climate control with integral pollen filter
Radio with compact disc player and speakers
Truck lights, work lamps
Mirrors
Highway specifications
Integral particulate filter with loading indicator in display for diesel-engine version
Engine air precleaner
Reversing warning signal, beacon lamps
Adjustable steering column
Blinds – roof and front screen
Accumulator for hydraulic service
On-board battery charger
High level air intake for heating system
Dust bowl air intake filter
Custom paintwork

Features

Power and Drive system

- Linde hydrostatic drive system providing stepless, precise operator control
- Low speed, high torque diesel engine matched to hydrostatic drive and hydraulic service pump requirements

Operators compartment

- Forward positioned for optimised all-round visibility
- Impact tested loadguard structure
- Integrated overhead guard



Double pedal operation

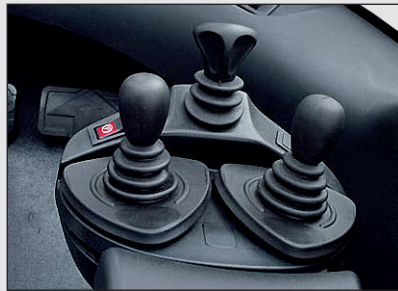
- Instant direction change
- Precise travel movement
- Reduces operator foot movement

Linde Load Control

- Standard operator controls providing effortless operation
- Twin-pedal drive system
- Linde Load Control levers
- Reduced operator fast movement

Modern, powerful engine

- Diesel motor, stage II emissions
- 6-cylinder, 5.9 ltr
- 129 kW rated at 2300 rpm
- Maximum torque 800 Nm @ 1500 rpm



Operators controls

- Linde Load Control levers
- Twin pedal drive system
- Column mounted handbrake
- Centre emergency brake pedal
- Centralised glarefree multifunction display

Linde Truck Control

- Reliable electronic controller
- High dependability resulting from redundant monitoring systems
- Automatic control of engine speed as function of load
- Casing totally enclosed for protection from dust and dirt

Linde free-sight mast

- Unique mast profile developed to facilitate both compact fork handling and also optional empty container handling
- Optimised forward visibility by placing all operational parts behind or to the outside of the mast profile
- Universal 'terminal west' type carriage system with interchangeable carriers and forks, for multi-functional operation

Linde AG

Linde Material Handling Division, Postfach 10 01 36, 63701 Aschaffenburg, Germany
Phone +49.60 21.99-0, Fax +49.60 21.99-1570, www.linde-forklifts.com, info@linde-forklifts.com

Linde Material Handling

