

## Safety

The new K range is a versatile, dual-purpose rising cab VNA system truck designed for high density storage and retrieval of unit loads, as well as order picking in very narrow aisles. In addition to modern, functional styling, the K range provides an environment in which the operator can work in complete comfort and safety.

## Performance

Intuitive use of the control panels enables throughput of goods to be increased without removing the hands.

The operator can check the truck's status via the multifunctional display in the control panel. Designed for low energy consumption, the K truck also returns energy to the battery during braking and main mast/cab lowering.

## Comfort

The K truck enables the operator to immediately feel at ease and acclimatised. With protection against draughts and noise, the cab offers a comfortable operational environment and allows the operator to work effectively and with minimum fatique.



## Reliability

Modern technology, combined with Linde's vast experience in very narrow aisle applications, guarantees high quality and extended product life. CAN bus diagnostics enable rapid fault finding and repair.

## **Productivity**

The unique modular design ensures that an individual K truck's specification can be tailored to match the application precisely in order to maximise productivity at all times. The smart electronics of Linde System Control (LSC) continuously monitors the truck's technical potential in order to deliver optimum simultaneous lift and travel speeds relative to lift height and load weight.

# Equipment

## Standard equipment

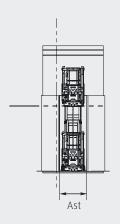
Modular designed truck for perfect customization	Sensor area for 2nd hand for 2 handed driving
Operators compartment	Throughput
Operators cabin "Combi" for easy stacking or order picking	LSC standard
Height adjustable and stowable fabric seat	Synchronized lowering
Suspension-mounted cab to absorb shock and vibration	Energy recovery when braking or lowering the cabin
Very soft and comfortable platform surface	
Steering knob	Mast Forks
Truck access via key	L Head or telescopic forks
Low step on height for easy on and off	
Optic and acoustic user guidance with signalling	Motors
Basic functions without changing position of grip	7 KW drive motor
Multipurpose display with keypad	20 KW lift motor

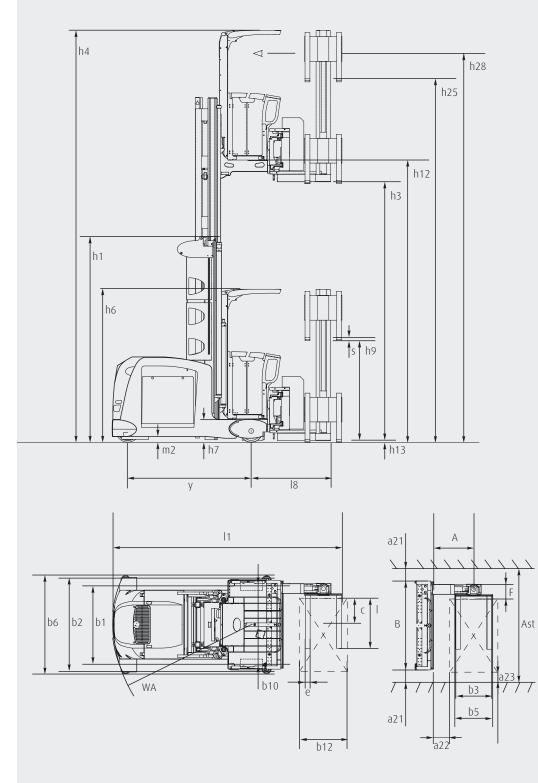
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## Technical data

	1.1	Manufacturer		LINDE	LINDE	LINDE
Characteristics	1.2	Model designation		K	K	K
	1.3	Power type: battery, diesel, petrol, LPgas, mains power		Battery	Battery	Battery
cte	1.4	Control type: manual, pedestrian, stand-on, seated, order picker		Stand-on/seated	Stand-on/seated	Stand-on/seated
Jara	1.5	Load capacity	Q (kg)	1000	1000	1250
$\overline{\Box}$	1.6	Load centre distance	c (mm)	600	600	600
	1.9	Wheelbase	y (mm)	1586	1586	1676
ts	2.1	Service weight (with battery)	kg	6122	6791	6944
Weights	2.2	Axle load with load, drive side / load side	kg	1421/5701	1710/6081	1852/6343
×	2.3	Axle load without load, drive side / load side	kg	2189/3933	2478/4312	2630/4315
	3.1	Tyres (Solid rubber, vulkollan, pneumatic, polyurethane)		Polyurethane	Polyurethane	Polyurethane
	3.2	Tyre size, drive side	mm	360/140	400/170	406/170
Chassis	3.3	Tyre size, load side	mm	370/160	370/160	370/160
Chas	3.5	Wheels, number drive side / load side (x=driven)		1x/2	1x/2	1x/2
0	3.6	Track width, front	b10 mm	1240	1240	1190
	3.7	Track width, rear	b11 mm	-	-	-
	4.2	Height of mast, lowered	h1 (mm)	2900	2900	2900
	4.4	Lift	h3 (mm)	3600	3600	3200
	4.5	Height of mast, extended	h4 (mm)	6155	6155	5755
	4.7	Height of overhead quard (cab)	h6 (mm)	2555	2555	2555
	4.8	Height of platform	h7 (mm)	445	445	445
	4.11	Auxiliary lift	h9 (mm)	1675	1675	1675
	4.14	Platform height, raised	h12 (mm)	4045	4045	3645
	4.14.1	Picking height (h12 + 1600)	h28 (mm)	5645	5645	5245
	4.14.1	Lowered fork height	h13 (mm)	60	60	60
	4.13	Overall length (over forks)	11 (mm)	3391	3401	3296
		Overall width of chassis / axle bracket				
	4.21		b1/b2 (mm)	1160/1450	1160/1450	1160/1400
	4.22	Fork dimensions	s/e/l (mm)	50/120/1200	50/120/1200	50/120/1200
ons	4.24	Fork carriage width	b3 (mm)	710	710	710
ensi	4.25	Fork spread min.	b5 min (mm)	470	470	470
Dimensions	4.25	Fork spread max.	b5 max (mm)	640	640	640
	4.27	Width over guide rollers	b6 (mm)	1615	1615	1495
	4.29	Traverse stroke	b7 (mm)	1300	1300	1300
	4.31	Ground clearance under mast, with load	m1 (mm)	40	40	40
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	87	87	87
	4.34	Aisle width	Ast (mm)	1640	1640	1640
	4.35	Turning radius	Wa (mm)	1842	1852	1942
	4.38	Fork pivot point	I8 (mm)	1194	1194	999
	4.39	Rotator length	A (mm)	675	675	480
	4.40	Traverse frame width	B (mm)	1415	1415	1415
	4.41	Rotator width	F (mm)	240	240	240
	4.42	Transfer aisle width, min.	Au (mm)	3975	3985	3715
	4.44	Cab entrance clear width.	(mm)	495	495	495
	4.45	Cab clear height	(mm)	2000	2000	2000
	5.1	Travel speed, with/without load	km/h	9.0/9.0	10.5/10.5	10.5/10.5
9	5.2	Lift speed, with/without load	m/s	0.38/0.40	0.38/0.47	0.36/0.47
Performance	5.3	Lower speed, with/without load	m/s	0.45/0.45	0.45/0.45	0.45/0.45
rfor	5.4	Traverse speed, with/without load	m/s	0.30/0.30	0.30/0.30	0.30/0.30
Per	5.9	Acceleration time, with/without load (first 10 m)	S	6/6	6/6	6/6
	5.10	Service brake		Regenerative	Regenerative	Regenerative
	6.1	Drive motor	kW	6.5kW/S2=60min	7.0kW/S2=60min	7.0kW/S2=60min
	6.2	Lift motor	kW	13.0kW/S3=20%	20.0kW/S3=40%	20.0kW/S3=40%
Drive	6.3	Battery to IEC 254-2; A, B, C, No		IEC 254-2; B	IEC 254-2; A	IEC 254-2; A
	6.4	Battery type, voltage, rated capacity (Ks)	V/Ah	PzS, 48 V, 775 Ah	PzS, 80 V, 420 Ah	PzS, 80 V, 465 Ah
	6.5	Battery weight (±5%) (varying with make)	kg	1119	1238	1238
	8.1	Drive controller		Microprocessor	Microprocessor	Microprocessor
Other	8.4	Noise level at operator's ear	dB (A)	68	68	68
$\overline{}$	0.4	Noise level at operator's car	db (M)	UU	00	00

LINDE	LINDE		
K	K		
Battery	Battery		
Stand-on/seated	Stand-on/seated		
1500	1500		
600	600		
1820	2108		
7501	8201		
2057/6944	2660/7041		
2926/4575	3409/4792		
Polyurethane	Polyurethane		
406/170	406/170		
370/160	370/160		
1x/2	1x/2		
1290	1290		
2900	2900		
3200	3200		
5755	5755		
2555	2555		
445	445		
1675	1675		
3645	3645		
5245	5245		
60	60		
3440	3728		
1160/1500	1160/1500		
50/120/1200	50/120/1200		
710	710		
470	470		
640	640		
1595	1595		
1300	1300		
40	40		
87	87		
1640	1640		
2086	2374		
999	999		
480	480		
1415	1415		
240	240		
3859	4147		
495	495		
2000	2000		
10.5/10.5	12.0/12.0		
0.38/0.47	0.48/0.60		
0.45/0.45	0.45/0.45		
0.30/0.30	0.30/0.45		
6/6	6/6		
Regenerative	Regenerative		
7.0kW/S2=60min	7.0kW/S2=60min		
20.0kW/S3=40%	24.0kW/S3=15%		
IEC 254-2; A	IEC 254-2; A		
PzS, 80 V, 620 Ah	PzS, 80 V, 930 Ah		
1558	2178		
Microprocessor	Microprocessor		
68	68		







## **Features**

#### Cabin

- → 5 different cabins available (combi (Standard) / truck / comfort / closed / cold store)
- → Reduced shock and vibration due to the isolation of the cab from the chassis
- → Easy and low heights access
- → Different comfortable and adjustable seat options



- → Unique modular designed truck enables the perfect specification for each application
- → Combination of different lift and drive motors (heavy duty/normal), chassis, masts, batteries, cabins, etc.



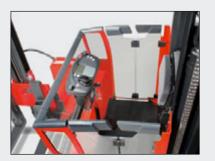
## Mast

- → New modular design for exceptionally stable low deflection characteristics
- → Different standard and triplex masts for all headroom requirements
- → Automatic soft stop of lift, rotate and traverse movements



#### Control panels

- → Easy and comfortable use, without the need to encompass
- → Combined driving and lifting/lowering
- → Always in perfect reach, for the heights of the panels can be adapted



### Drive

- → Encapsulated, maintenance free AC drive motors
- → 3 different motors for different applications



- → The Linde system control (LSC) represents a significant advance in the smart control of VNA trucks
- → LSC Standard dynamical diagram of residual capacity depending on the actual speed and lifting heights.
- → LSC with load recognition 3.1.

  Detection of load. additional lifting functions are adjusted
- → With load sensor 3.2. Detection of load. Additional lifting functions are adjusted as well the driving parameters.
- → LSC with weight and load recognition 3.3. Driving profile depending on the actual transported weight. Plus the 3.1 optimization

#### Braking

- → 2 independent wearless working braking systems:
  - electric regenerated braking actuated as the accelerator is released or opposite direction of travel is selected
  - electromagnetic, spring loaded parking and emergency brake



### Batteries

- → Battery changing from both sides possible through forklift or roller bed
- → 4 different battery sizes available (420Ah - 930Ah)

