



## ORDER PICKER TRUCK

**CAPACITY: 3,000 lbs.**

V15

SERIES 5215

### Design

The Linde Electric Order Picker comes with Linde warehousing know how. These new trucks have been designed to handle the most demanding applications. Critical harness connections utilize sealed connectors, along with solid state components like Hall effect sensors which eliminate the use of potentiometers. CAN bus controls reduce wiring and improves diagnostics. Base arms are welded to the frame, separate from the mast to provide a rigid /firm feel. This unitized design and solid steel provide better rigidity at top shelf heights.

### Performance

The powerful high thermal capacity 4.9 kW (24V), 6.6 kW (36V) AC drive motor delivers high-performance acceleration, braking and travel speeds. The V15 series utilizes 100% AC motor technology, along with the latest controls allows the operator to smoothly operate the truck. Gradual travel and lifting speeds give the operator a sense of confidence when picking at different levels. Better defined braking, variable lifting speeds and capacity at extended heights increase productivity. Precise feathering of the operating platform positions the operator closer to the pick and Linde's 36-volt AC travel and lift is available for those longer runs, higher lift applications. Available on various electric warehouse products, curve speed control automatically reduces the driving speed depending on the steering angle. This enables the truck and operator to maneuver in and out of aisles with confidence.

### Comfort

Large operator foot room and brake area, with a premium floor mat, ensure enough space to comfortably change foot positioning throughout the day. The operator console is designed for the operator to comfortably lean forward and an electrically adjustable work station is available. Specially designed ergonomic controls provide a sure grip which increases the productivity and confidence of the operator. An additional sensor is in the control handle, allowing a solid 4-point stance for support. Excellent visibility through an armored glass overhead guard and a contoured work area allow a more productive day.

### Reliability/Durability

Linde knows reliability and durability thanks to over 60 years of material handling experience. The Order Picker comes with proven Linde components from the drive unit to the AC electric motors. A number of engineering tests have been performed including FEA (finite element analysis) and Hydropulse for durability of frame and components over extended periods of time. Outriggers are solid steel welded to the frame separate from the mast assembly, with the goal of achieving a rigid frame for greater loads at extended lift heights up to 360". The rear frame is reinforced for added strength including protection of the load wheels. Critical harness connections use sealed connectors. CAN bus control systems reduce wiring and improve reliability over the life of the truck. Brushless design of the traction, lift and steer motors improve reliability and extend maintenance intervals.

### Serviceability

A one-piece low profile cover provides greater visibility and noise reduction. Full access to key components is achieved without tools and directly in front of the technician. The low maintenance AC traction motor with built-in thermal protection is enclosed for additional safeguards against damage debris or moisture. The CAN bus design and diagnostics can be controlled through a single point plug and fault codes can be easily displayed.

# STANDARD & OPTIONAL EQUIPMENT

## STANDARD

- 195" MFH / 89" OALH 3-stage soft stage smooth landing mast
- 42" Wide x 27.0" deep operator platform
- 42.0"x1.5x4.0 standard tapered forks
- 13.5"x5.3" polyurethane drive tire
- 5"x4" articulating tandem load wheels
- 42.0" L x 14.6" W x 36.0" H battery compartment
- 24V electrical system
- Standard construction
- 42" outside dimension (base width basearms)
- UL classification type "E"
- Key switch start
- Steering returns to 0 upon start
- Curve control
- Powered lowering
- Stationary multi-function control handle
- Operator sensor in handle
- Proportional lift with re-gen lowering
- Large surface electrical park brake / automatically engaged / foot release
- Wide opening pallet clamp automatically engaged foot control
- High-level operation restricted speed and steer angle < 10°
- AC controller
- AC traction / hoist / steering
- Single hydraulic pump and motor
- CAN bus communications
- Electric power steering with auto-center at startup
- Auto deceleration with regenerative braking
- LCD multi-function display with back lighting
- Hour meters: truck, traction, and hoist pump
- Battery discharge indicator with lift interrupt
- Steer drive unit wheel angle indicator
- Truck speed in mph or km/h
- LED indicators with symbols
- Programmable travel speeds
- Slack chain indicators
- Cantilever overhead guard
- Low step height to reduce operator fatigue
- Protective mast guard wire mesh
- Hoop-style stationary platform gates
- Battery power disconnect button
- Operator storage compartment with removable bins
- Full body harness and retractable tether
- Electric horn
- Static strap
- Fixed clipboard
- Beverage holder
- Battery rollers
- Chassis-mounted flashing beacon
- Operating manual - English

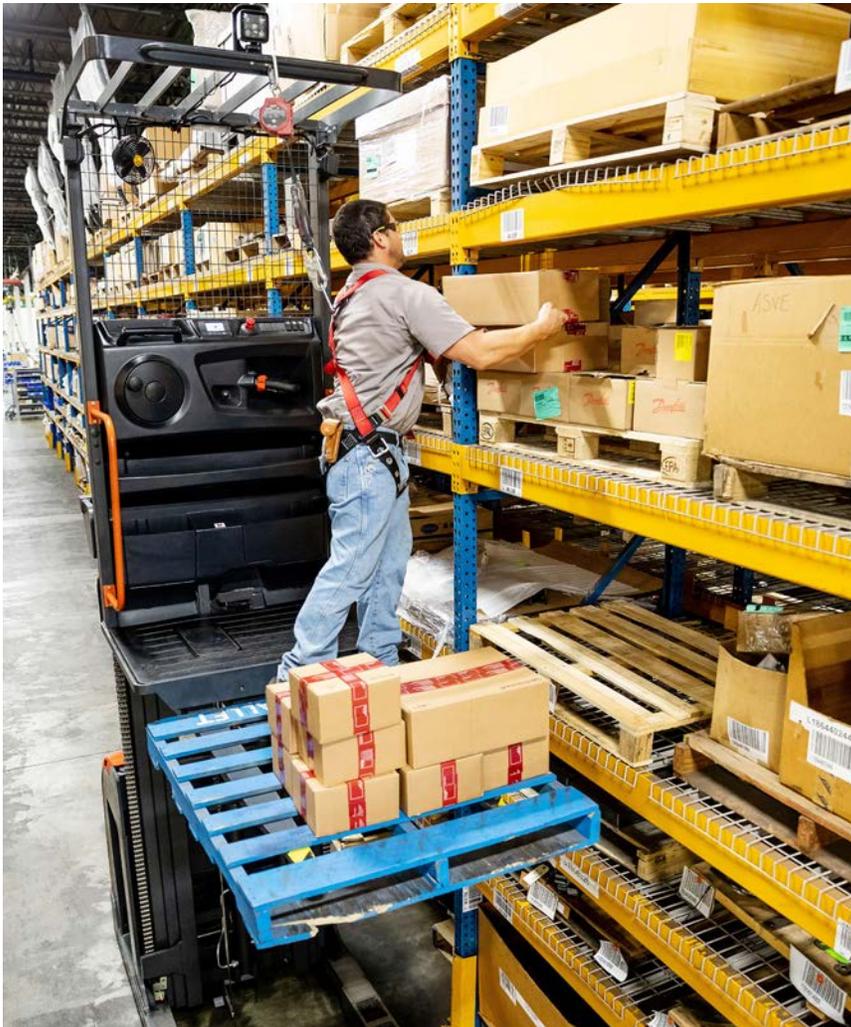
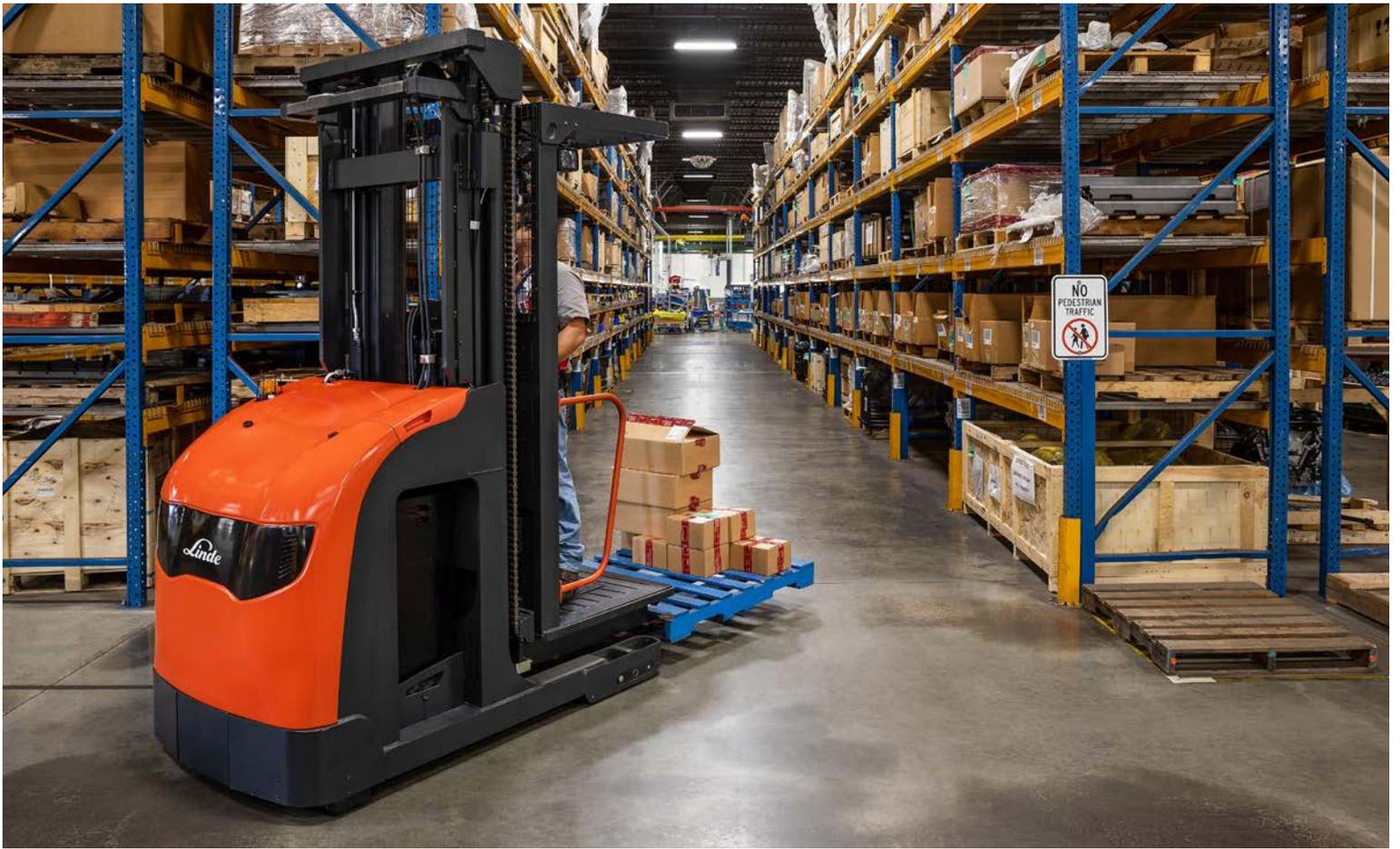
## OPTIONAL

- 36V electrical system
- UL classification "EE"
- Pin code / toggle switch
- Environmental construction
  - Cooler freezer conditioning -26°F - 110°F
  - Corrosion
  - Food grade
- Safety glass shield
- Retractable side gates with traction cutout
- 4" vertical adjustable (Electric) operator console / work station
- Various mast options available
- Fork option lengths available
- Lift limit without push-button override
- Lift limit with push-button override
- Various drive tire options
- Operator platform widths 42", 48", 54", 60
- Wire guidance
- Rail guidance
- Various light / convenience packages
  - Cabin light
  - Two lateral lights
  - Blue spot activated forward
  - Blue spot activated reverse
  - One light to shine on load
- DC to DC converter - 25 amps / 400 watts at 12 volts
- Audible alarm reverse direction activated
- Motion alarm forward and reverse
- Motion alarm continues operation key on two-speed fan-mounted on
- Parts manual
- Polycarbonate mast protection

Mast Dimensions			
	Maximum Fork Height	Overall Lowered Height	Overall Extended Height
	in. (mm)	in. (mm)	in. (mm)
3-Stage	192.7" (4895)	90.7" (2304)	281.7 (7155)
	210.4" (5344)	96.6" (2454)	299.4 (7605)
	240.0" (6096) max for VOP15B	106.5" (2705)	329.0 (8357)
	265.5" (6744)	118.3" (3005)	354.0 ( 8992)
	295.0" (7493) max for VOP15P	128.1" (3254)	384.0 (9754)
	312.8" (7945)	134.0" (3404)	401.8 (10205)
	332.5" (8446)	149.8" (3805)	421.5 (10706)
	350.2" (8895)	155.7" (3955)	439.2 (11156)
	362.0" (9149) max for VOP15HP	159.6" (4054)	451.0 (11455)

Mast Performance				
	Lifting Speed		Lowering Speed	
	Empty	Rated Load	Empty	Rated Load
24V DC	75 ft/min	45 ft/min	79 ft/min	79 ft/min
36V DC	104 ft/min	81 ft/min	79 ft/min	79 ft/min
36V DC	104 ft/min	81 ft/min	79 ft/min	79 ft/min

*Rated load figures are based on 3,000 lbs. (1361 kg) load and a 24" load center.*



# V15 TECHNICAL DATA

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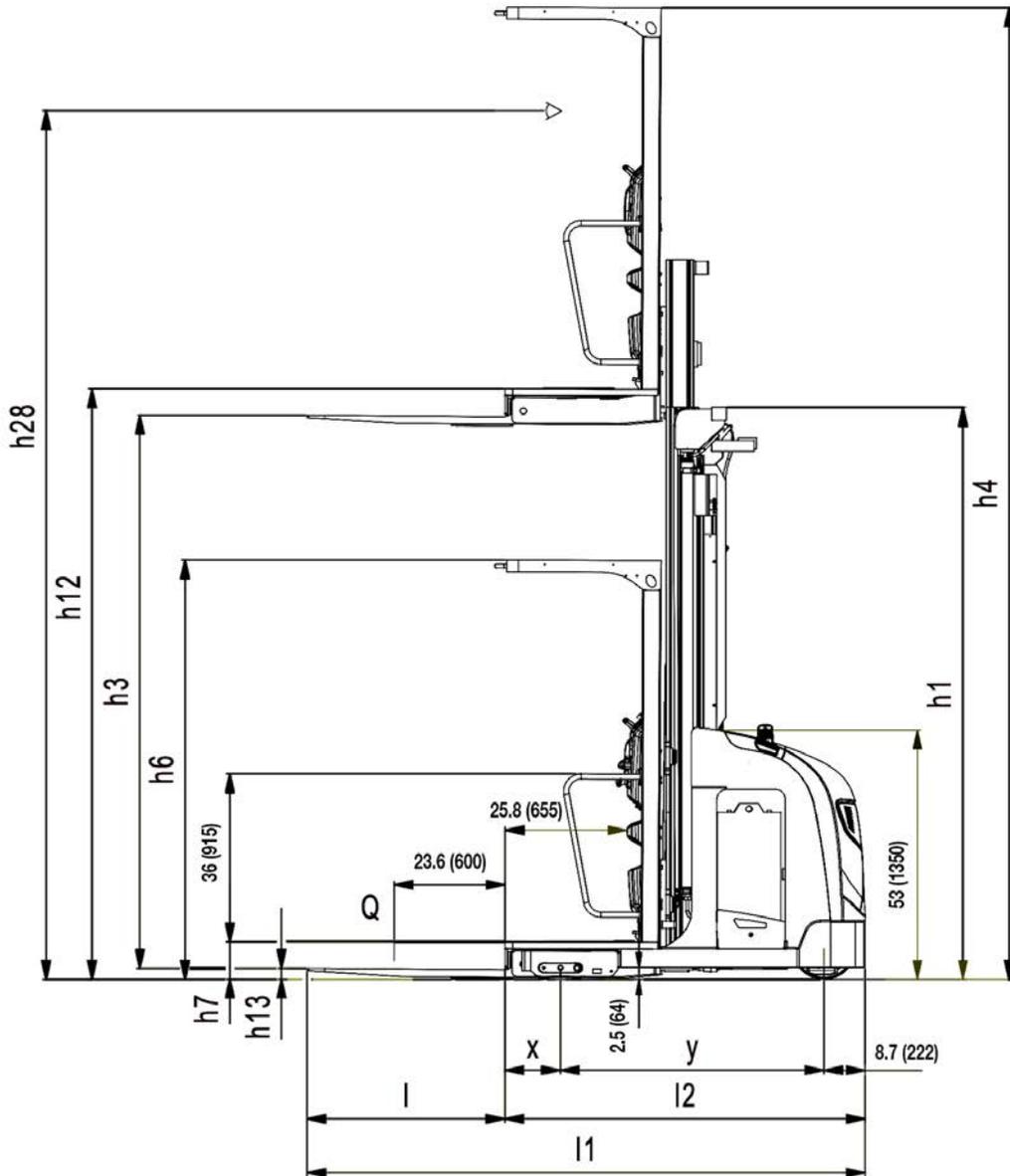
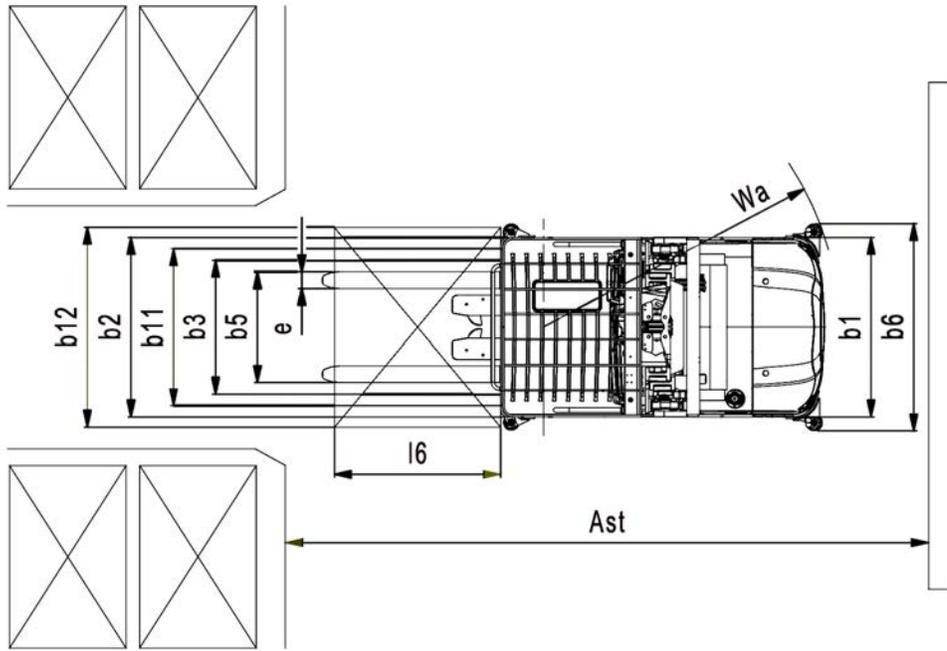
					LINDE				
					V15 - 24V		V15 - 36V		
Characteristics	1.1	Manufacturer			LINDE				
	1.2	Manufacturer's model designation			V15 - 24V		V15 - 36V		
	1.3	Power unit			Battery				
	1.4	Operation			Order Picker				
	1.5	Load capacity	Q	lbs	kg	2998.3	1360	2998.3	1360
	1.6	Load center	c	in	mm	23.6	600	23.6	600
	1.9	Wheelbase	y	in	mm	56.1	1425	56.1	1425
Weights	2.1	Service weight		lbs	kg	7562	3430	9480	4300
	2.2	Axle loadings with load front / rear		lbs	kg	2248.7/8421.7	1020/3820	3064.4/9546.0	1390/4330
	2.3	Axle loadings without load front / rear		lbs	kg	4221.9/3340	1915/1515	5158.8/4321.1	2340/1960
Wheels	3.1	Tires			Polyurethane				
	3.2	Tire size, front		in	mm	13.5x5.3	343x135	13.5x5.3	343x135
	3.3	Tire size, rear		in	mm	4.9x4.1	125x105	4.9x4.1	125x105
	3.5	Wheels, number front / rear (x=driven)				1x/4		1x/4	
	3.6	Track width, front	b <sub>10</sub>	in	mm	0	0	0	0
	3.7	Track width, rear	b <sub>11</sub>	in	mm	36.8	935	54.4	1382
	Dimensions	4.2	See mast chart			See mast chart			
4.8		Height of seat / stand-on platform	h <sub>7</sub>	in	mm	8.3	210	8.3	210
4.14		Platform height, raised	h <sub>12</sub>	in	mm	245.7	6240	367.7	9340
4.15		Fork height lowered	h <sub>13</sub>	in	mm	3	75	3	75
4.19		Overall length	l <sub>1</sub>	in	mm	118.9	3020	118.9	3020
4.20		Length to fork face	l <sub>2</sub>	in	mm	76.6	1945	76.6	1945
4.21		Overall width	b <sub>1</sub> /b <sub>2</sub>	in	mm	42.4/42.4	1077/1077	42.4/60.0	1077/1524
4.22		Fork dimensions	s/e/l	in	mm	1.6x3.9x42.1	40x100x1070	1.6x3.9x42.1	40x100x1070
4.24		Width of fork carriage	b <sub>3</sub>	in	mm	30.8	782	30.8	782
4.25		Fork spread, min. / max.	b <sub>5</sub>	in	mm	28.1/24.2	715/615	28.1/24.2	715/615
4.27		Width over side guider rollers	b <sub>6</sub>	in	mm	49	1245	67	1702
4.31		Ground clearance, mast	m <sub>1</sub>	in	mm	1.7	42	1.7	42
4.32		Ground clearance, center of wheelbase	m <sub>2</sub>	in	mm	2.8	70	2.8	70
4.35	Turning radius	W <sub>a</sub>	in	mm	66.9	1700	70.9	1800	
Performance	5.1	Travel speed, with / without load		mph	kmh	7.8/7.8	12.5/12.5	7.8/7.8	12.5/12.5
	5.2	Lift speed, with / without load		f/s	m/s	0.75/1.25	0.23/0.38	1.35/1.74	0.41/0.53
	5.3	Lowering speed, with / without load		f/s	m/s	1.3/1.3	0.4/0.4	1.3/1.3	0.4/0.4
	5.9	Acceleration time, with / without load		s		6.0/5.6		6.4/6.0	
	5.10	Service brakes		s		Regenerative		Regenerative	
Drive	6.4	Battery voltage / rated capacity		V/Ah		24/750		36/625	
	6.5	Battery weight (±5%)		lbs	kg	1444	655	1840.9	835
Others	8.1	Type of drive				AC Microprocessor		AC Microprocessor	
	8.4	Noise level at operator's ear		dB(A)		<70		<70	

Extended lift heights / maximum fork height may reduce capacity depending on OEC dimensions.

BATTERY SPECIFICATIONS							
Number of cells	Cell size	Plates per cell	Capacity 6-hr rate	Battery Compartment Dimensions			Min.Weight Required
				"x" (width)	"y" (length)	"z" (height)	
			amp hr (kwh)	in. (mm)	in. (mm)	in. (mm)	lbs. (kg)
12	125	17	1000 (23.4)	42 (1067)	14.6 (371)	36 (914)	655 (297)
12	140	17	1120 (26.2)	42 (1067)	14.6 (371)	36 (914)	655 (297)
12	155	17	1240 (29.0)	42 (1067)	14.6 (371)	36 (914)	655 (297)
18	125	11	625 (21.9)	42 (1067)	14.6 (371)	36 (914)	835 (379)
18	140	11	700 (24.6)	42 (1067)	14.6 (371)	36 (914)	835 (379)
18	155	11	775 (27.1)	42 (1067)	14.6 (371)	36 (914)	835 (379)

# V15 TECHNICAL DRAWINGS

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# FEATURES

## Uptime

- CAN bus communication is used to simplify wiring and communication
- Fewer parts to ensure maximum running time and less to maintain
- Hall effect sensors
- AC power means better performance and less maintenance
- No brush sets, spring sets, commutators or carbon dust
- Extended maintenance intervals
- AC components run cooler extending life and reducing operating cost
- Impact resistant one-piece toolless cover allows easy access to components



## Chassis

- Outriggers are solid steel welded to the frame, separate from the mast assembly
- The rear frame is reinforced for added strength including protection of the load wheels
- The frame design allows greater loads at extended lift heights up to 360" without extended outriggers
- FEA (finite element analysis) and Hydropulse analysis for durability of the frame and components over the extended life of the truck



## Operator Compartment

- An adjustable 4" console dash allows the operator to adjust a variety of work station heights for their comfort
- A thick shock absorbing floor mat and large flush mounted floor switch allow the operator to move around within the compartment and still have a 4-point stance
- The multifunction control handle is stationary and gives the operator a firm grip of controls
- Optional light package for better visibility within the workspace and dimly lit areas of the warehouse
- An additional hand rest provides additional comfort and stability
- Storage compartment provides enough space for clipboard and other supplies
- Low step height reduces fatigue for operators who are continually getting on and off the truck



## Control

- The steer tiller handle and steer effort can be dampened or adjusted for the confidence of the operator
- The multi-function control handle is stationary allowing a solid 4-point stance position in the operator compartment
- Auto center steering at startup
- Ergonomic handrest provides stability and control
- The pallet clamp automatically centers and firmly grips the pallet
- Full body harness and operator tether

For more information on Linde material handling equipment, please contact:

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Linde Material Handling

*Linde*

KION NORTH AMERICA

ANSI: Standard truck meets all applicable mandatory requirements of ANSI/ITSDF B56.1 standards for powered industrial trucks.  
NOTE: Performance data may vary due to motor and system efficiency tolerances. The performance depicted represents normal values obtained under typical operating conditions. All metric dimensions are in millimeters unless otherwise specified. All metric dimensions are not direct equivalents due to rounding data. The descriptions and specifications included on this data sheet were in effect at the time of printing. KION North America Corporation reserves the right to make improvements and changes in specification or design without notice and without incurring obligation. Please check with your authorized Linde dealer for information on possible updates or revisions.

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