

# GET ON THE FAST TRACK Tailored Solutions in Half the Lead Time

### **VIEW OUR 4-PACK OF QUICK SHIP OPTIONS**





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kion-na.com



## ELECTRIC FORKLIFT TRUCKS E18 / E20 / E20C / E20P

### 3,500 - 4,000 lbs. Capacity

Series 346

- → Lowest energy consumption combined with high residual capacity meets the need for maximum versatility in a truck that fits most applications
- → Linde Load Control coordinates the dual AC-motor drive axle and electronic control levers to provide stable and precise load handling for any variety of products
- → Compact maneuverability through a heavy-duty steer axle (E18/E20) and the Linde exclusive combi steering axle (E20C/E20P) allows the truck to navigate tight spaces
- → The standard full-suspension seat with tilt-up armrest and electronic fingertip control levers encourage productive operators with fewer fatigue-related injuries throughout the workday

### **STANDARD & OPTIONAL EQUIPMENT**

#### STANDARD

- 36-volt or 48-volt chassis
- Dual-pedal travel control
- Cushion tires
- Low-height, lift-out battery exchange
- Standard 80.5" overhead guard
- Three-function hydraulic valve
- Three-function electronic control levers
- Linde Load Control
- Standard tilt (6°F / 5°B)
- Full-suspension vinyl seat with tiltable armrest
- Adjustable padded armrest
- Two front work lights
- Key switch start
- SB350 battery connector
- Emergency power interrupt button
- UL classification, Type E
- Black, non-cinching seat belt
- Maintenance-free wet-disc brakes
- 100% AC traction and lift motors
- Multi-function display indicator
- Tow pin and tie-down cutouts
- Electronic forward horn
- Hydrostatic power steering system
- Adjustable steering column
- Linde Curve Assist speed-control
- Steel entry handle
- Spring-assisted battery cover
- 1000-hour maintenance intervals
- 3-year / 6000-hour (standard warranty)

#### OPTIONAL

- Single-pedal travel control
- Pneumatic-shaped solid tires (SE)
- Non-marking tires
- Side battery removal with slides/rollers
- Simplex, duplex, triplex, and quad masts
- 38.6" Class II fork carriage
- Integrated / hang-on sideshifter
- Low-profile and drive-in rack overhead guard
- Four-function hydraulic valve
- Four-function electronic control levers
- Bottler's tilt (10°F / 4°B)
- Auxiliary function hydraulic hose reeving
- Quick-disconnect hydraulic fittings
- High comfort textile seat with tiltable armrest
- Tilt angle memory
- Load backrest extension 48"
- LED work lights
- Linde BlueSpot™
- LED rear combination light bars
- Flashing amber strobe light
- Back-up alarm
- Rear handle with horn button
- Fire extinguisher (2.5 lb dry chemical)
- Panoramic rear-view mirror
- Flat rear-view mirror
- High-visibility orange seat belt
- Keyless start switch
- Operator fan
- Cold-storage protection
- UL classification, Type EE

## Capacity\*

				E18				
		1.5" x 4" x 42" Std. Taper Class II Forks Cushion Tires 18 x 7 x 12.13 Drive Tire Class II Sideshifter + Back Tilt Angle = 5°						
Mast Cap	oacity Table			Capacity (lb)	@ 24" Load Cen	ter**		
h1	h3	h2		Std. Carriage	Integral SS Carriage	Hang-on SS Carriage*		
80.0	122.0	00.0	Simplex	3500	3500	3250		
84.0	129.5	00.0	Simplex	3500	3500	3250		
91.5	145.5	00.0	Simplex	3500	3500	3250		
77.5	168.0	53.0	Triplex	3500	3500	3250		
79.5	174.0	55.0	Triplex	3500	3500	3250		
84.0	188.0	59.5	Triplex	3500	3500	3250		

				E20			
1.5" x 4" x 42" Std. Taper Class II Fo Cushion Tires 18 x 7 x 12.13 Drive Class II Sideshifter • Back Tilt Angle = 5°							
Mast Cap	oacity Table			Capacity (lb) @ 24" Load Center**			
h1	h3	h2		Std. Carriage	Integral SS Carriage	Hang-on SS Carriage*	
80.0	122.0	00.0	Simplex	4000	4000	3750	
84.0	129.5	00.0	Simplex	4000	4000	3750	
91.5	145.5	00.0	Simplex	4000	4000	3750	
77.5	168.0	53.0	Triplex	4000	4000	3750	
79.5	174.0	55.0	Triplex	4000	4000	3750	
84.0	188.0	59.5	Triplex	3600	3600	3350	

E20C	/	E20P
	· ·	

1.5" x 4" x 42" Std. Taper Class II Forks\*\* Cushion Tires 18 x 7 x 12.13 Drive Tires\*\* Class II Sideshifter • Back Tilt Angle = 5°

Mast Ca	pacity Table	•		Capacity (lb)	Capacity (lb) @ 24" Load Center**			
h1	h3	h2		Std. Carriage	Integral SS Carriage	Hang-on SS Carriage*		
80.0	122.0	00.0	Simplex	4000	4000	3750		
84.0	129.5	00.0	Simplex	4000	4000	3750		
91.5	145.5	00.0	Simplex	4000	4000	3750		
77.5	168.0	53.0	Triplex	4000	4000	3750		
79.5	174.0	55.0	Triplex	4000	4000	3750		
84.0	188.0	59.5	Triplex	3600	3600	3350		

\* For quick reference only, contact factory for detailed ratings. \*\* Capacity ratings can be affected by changing forks, load center, and/or drive tires.

## **Technical Data**

E18

1.1	Manufacturer		Lir	ıde			
1.2	Model designation	E18					
0 1.2.1	Chassis configuration	3-Wheel					
1.2.1 1.3 1.4 1.5	Power unit: battery, diesel, LP gas	36-Volt Battery	48-Velt Battery				
1.4	Operation: manual, pedestrian, rider standing, rider seated, order picker		Rider	Rider seated			
1.5	Load capacity	ę 16	35	0			
5 1.6	Load center	c in	24	24			
1.8	Load distance (front overhang)	x in	15.4	15.4			
1.9	Wheelbase	y in	55.9	55.9			
2.1	Service weight with min. battery	lb	\$355	\$355			
2.1 2.2	Axle loading with load, front/rear	16	10495 / 1361	10495 / 1361			
2.3	Axle loading without load, front/rear	Ib	4411 / 3945	4411 / 3945			
3.1	Tire type - front/rear: cushion, super elastic, pneumatic		Cushion <sup>1)</sup>	Cushion <sup>1)</sup>			
3.2	Tire size: front	in	18 x 7 x 12.13	18 x 7 x 12.13			
3.2 3.3 3.5 3.6	Tire size: rear	in	15 x 5 x 11.25	15 x 5 x 11.25			
3.5	Wheels: number front/rear (x = driven)		2x / 2	2x / 2			
3.6	Track width, front	b10 in	35.0	35.0			
3.7	Track width, rear	b11 in	6.8	6.8			
4.1	Mast/fork carriage tilt: forward/back	degrees	6°/5°	6° / 5°			
4.2	Height of mast lowered	h1 in	See mast table	See mast table			
4.3	Free lift	h2 in	See mast table	See mast table			
4.4	Lift	h3 in	See mast table	See mast table			
4.5	Height of mast extended	h4 in	See mast table	See mast table			
4.7	Height of overhead guard/cab	h6 in	80.52)	\$0.52)			
4.8	Height of seat	h7 in	38.9	38.9			
	Height of low coupling	h10 in	23.0	23.0			
4.12 4.19 4.20 4.21		11 in	121.3	121.3			
4.20	Length to fork face	12 in	79.4	79.4			
4.21		1/b2 in	42.04)	42.04)			
4.22	Fork dimensions	s/e/lin	1.5 x 4.0 x 42.0	1.5 x 4.0 x 42.0			
	Fork carriage: class	3/ 0/ 1/11	Class II	Class II			
	Width of fork carriage	13 in	38.6	38.6			
	Ground clearance under mast, with load	mT in	2.9	2.9			
	Ground clearance, center of wheelbase	m2 in	3.3	3.3			
	Aisle width (must add lead length and clearance)	Ast in	803)	803)			
	Turning radius	Wain	63.9	63.9			
_	Travel speed, with/without load	mph	8.7 / 8.7	10/10			
5.1	Lifting speed, with/without load	fpm	59/89	60 / 102			
5.3	Lowering speed, with/without load	ipin ipin	96 / 78	96 / 78			
5.5	Maximum tractive force, with/without load (5 min. rating)			-			
5.2 5.3 5.6 5.7	Climbing ability, with/without load	16s 46	2450 / 2450	2200 / 2200			
-	Service brake	90	16 / 23	16/23			
5.10		hr	Wet disc	Wet disc			
6.1	Drive motor (60 min. rating)	hp	2x 5.4	2X 6.1			
6.2	Lift motor (15% rating)	hp	10.0	13.4			
6.3	Battery voltage	V	36	48			
6.4	Battery compartment dimension (I x w x h; maximum)	in	25.0 x 38.9 x 25.95)	25.0 x 38.9 x 25.9			
6.5	Batlery weight (US battery, minimum / maximum)	16	2155 / 2730	2155 / 2730			
8.2	Working pressure for attachments	<i>psi</i>	2465	2465			
5 8.3	Oil flow for attachments	gpm	8.5	8.5			

SE tire available
 Lower OHG available

a) Add length of load plus operating clearance
 b) 46" wide with 200/50-10 SE tires
 c) Optional battery removal system will reduce compartment height: 23.34 w/battery rollers — 25.40 w/battery slides

## Technical Data

E20

February 2020

	1.1	Manufacturer		Lin	de		
- f	1.2	Model designation			20		
2		Chassis configuration	3-Wheel				
Stic	1.3	Power unit: battery, diesel, LP gas		36-Volt Battery	48-Volt Battery		
Character	1.4	Operation: manual, pedestrian, rider standing, rider seated, order picker			seated		
	1.5	Lead capacity	QI		00		
	1.6	Lead center	c in	24	24		
	1.8	Load distance (front everhang)	xin	15.4	15.4		
ŀ	1.9	Wheelbase	y in	\$5.9	55.9		
_	2.1	Service weight with min. battery	Ib	8796	\$796		
Weight		Axle loading with load, front/rear	Ib	11366 / 1430	11366 / 1430		
Ne l	2.2	Axle loading without load, front/rear	ID ID				
-	2.3		ID	4412 / 43 <b>8</b> 4	4412 / 4384		
S -	3.1	Tire type - front/rear: cushion, super elastic, pneumatic	3-1	Cushien1)	Cushien1)		
Ē	3.2	Tire size: front	in	18 x 7 x 12.13	18 x 7 x 12.13		
S	3.3	Tire size: rear	İA	15 x 5 x 11.25	15 x 5 x 11.25		
Wheels & lifes	3.5	Wheels: number front/rear (x = driven)	1	2x / 2	2x / 2		
-	3.6	Track width, front	b10 in	35.0	35.0		
_	3.7	Track width, rear	b11 in	6.8	6.8		
	4.1	Mast/fork carriage tilt: forward/back	degrees	6°/5°	6*/5*		
4.2	4.2	Height of mast lowered	h1 in	See mast table	See mast table		
	4.3	Free lift	h2 in	See mast table	See mast table		
	4.4	Lift	h3 in	See mast table	See mast table		
	4.5	Height of mast extended	h4 in	See mast table	See mast table		
	4.7	Height of overhead guard/cab	h6 in	80.52)	\$0.52)		
ſ	4.8	Height of seat	h7 in	38.9	38.9		
S	4.12	Height of tow coupling	h10 in	23.0	23.0		
Dimensions	4.19	Overall length with 42" forks	It in	121.3	121.3		
36	4.20	Length to fork face	12 in	79.4	79.4		
ā	4.21	Overall width	b1/b2 in	42.04)	42.04)		
- 11	4.22		s/e/lin	1.5 x 4.0 x 42.0	1.5 x 4.0 x 42.0		
h	4.23	Fork carriage: class		Class II	Class II		
		Width of fork carriage	63 in	38.6	38.6		
		Ground clearance under mast, with load	m1 in	2.9	2.9		
		Ground clearance, center of wheelbase	m2 in	3.3	3.3		
		Aisle width (must add load length and clearance)	Ast in	803)	803)		
-		Turning radius	Wa in	63.9	63.9		
-+	5.1	Travel speed, with/without load	mph	8.7 / 8.7	10/10		
e l	5.2	Lifting speed, with/without load	fpm	59 / 89	60 / 102		
3D	5.3	Lowering speed, with/without load	fpm	96 / 78	96 / 78		
50	5.6	Maximum tractive force, with/without load (5 min. rating)	lbs	2450 / 2450	2200 / 2200		
Pertormance	5.7	Climbing ability, with/without load	96	14 / 22	14/22		
-			91)				
-	5.10		h-	Wet disc	Wet disc		
	6.1	Drive motor (60 min. rating)	hp	2x 5.4	2x 6.1		
Drive	6.2	Lift moter (15% rating)	hp	10.0	13.4		
5	6.3	Battery voltage	V	36	48		
-	6.4	Battery compartment dimension (I x w x h; maximum)	in	25.0 x 38.9 x 25.95)	25.0 x 38.9 x 25.95		
_	6.5	Battery weight (US battery, minimum / maximum)	lb	2155 / 2730	2155 / 2730		
Other	8.2	Working pressure for attachments	psi	2465	2465		
0	8.3	Oil flow for attachments	gpm	8.5	8.5		

1) SE tire available

2) Lower OHG available

3) Add length of load plus operating clearance

4) 46" wide with 200/50-10 SE lires

5) Optional battery removal system will reduce compartment height: 23.34 w/battery rollers - 25.40 w/battery slides

## **Technical Data**

E20C / E20P

February 2020

	1.1	Manufacturer		Lin	nde		
Γ	1.2	Model designation	E20C / E20P				
2 1	1.2.1	Chassis configuration		4-Wheel			
	1.3	Power unit: battery, diesel, LP gas		36-Volt Battery	48-Volt Battery		
2	1.4	Operation: manual, pedestrian, rider standing, rider seated, order picker			seated		
	1.5	Load capacity	Q lb		00		
Š	1.6	Load center	c in	24	24		
- 11	1.8	Load distance (front overhang)	x in	15.4	15.4		
h	1.9	Wheelbase	y in	61.0	61.0		
-11	2.1	Service weight with min. battery	lb	8827	8827		
	2.2	Axle loading with load, front/rear	lb	11433 / 1393	11433 / 1393		
í H	2.2	Axle loading without load, front/rear	lb	4729 / 4097	4729 / 4097		
+	3.1	Tire type - front/rear: cushion, super elastic, pneumatic	IU	Cushion <sup>1</sup> )	Cushion <sup>1</sup> )		
3 H		Tire size: front	in				
	3.2		in	18 x 7 x 12.13	18 x 7 x 12.13		
	3.3	Tire size: rear	in	16 x 6 x 10.5`	16 x 6 x 10.5		
	3.5	Wheels: number front/rear (x = driven)	400	2x / 2	2x/2		
i	3.6	Track width, front	b10 in	35.0	35.0		
+	3.7	Track width, rear	b11 in	31.0	31.0		
H	4.1	Mast/fork carriage tilt: forward/back	degrees	6° / 5°	6° / 5°		
	4.2	Height of mast lowered	h1 in	See mast table	See mast table		
	4.3	Free lift	h2 in	See mast table	See mast table		
	4.4	Lift	h3 in	See mast table	See mast table		
	4.5	Height of mast extended	h4 in	See mast table	See mast table		
	4.7	Height of overhead guard/cab	h6 in	80.52)	80.52)		
	4.8	Height of seat	h7 in	38.9	38.9		
2 1	4.12	Height of tow coupling	h10 in	23.0	23.0		
	4.19	Overall length with 42" forks	l1 in	127.9	127.9		
	4.20	Length to fork face	l2 in	85.9	85.9		
	4.21	Overall width	b1/b2 in	42.0 <sup>4)</sup>	42.04)		
		Fork dimensions	s/e/l in	1.5 x 4.0 x 42.0	1.5 x 4.0 x 42.0		
-		Fork carriage: class	, ,	Class II	Class II		
- 6	4.24		b3 in	38.6	38.6		
_		Ground clearance under mast, with load	m1 in	2.9	2.9		
_		Ground clearance, center of wheelbase	m2 in	3.3	3.3		
_ <b>L</b>		Aisle width (must add load length and clearance)	Ast in	863)	863)		
-		Turning radius	Wain	70.4	70.4		
ť	5.1	Travel speed, with/without load	mph	8.7 / 8.7	10 / 10		
ł	5.2	Lifting speed, with/without load	fpm	59 / 89	,		
		Lowering speed, with/without load			60 / 102 96 / 78		
	5.3		fpm Ibc	96 / 78	,		
	5.6	Maximum tractive force, with/without load (5 min. rating)	lbs	2450 / 2450	2200/2200		
	5.7	Climbing ability, with/without load	%	14 / 22 Wat disc	14 / 22		
_	5.10	Service brake	1	Wet disc	Wet disc		
- E	6.1	Drive motor (60 min. rating)	hp	2x 5.4	2x 6.1		
	6.2	Lift motor (15% rating)	hp	10.0	13.4		
	6.3	Battery voltage	V	36	48		
	6.4	Battery compartment dimension (I x w x h; maximum)	in	25.0 x 38.9 x 25.9 <sup>5</sup> )	25.0 x 38.9 x 25.9		
	6.5	Battery weight (US battery, minimum / maximum)	lb	2155 / 2730	2155 / 2730		
	8.2	Working pressure for attachments	psi	2465	2465		
5 I	8.3	Oil flow for attachments	gpm	8.5	8.5		

1) SE tire available

2) Lower OHG available

3) Add length of load plus operating clearance

4) 46" wide with 200/50-10 SE tires
 5) Optional battery removal system will reduce compartment height: 23.34 w/battery rollers – 25.40 w/battery slides











For more information on Linde Material Handling equipment, please contact:

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## STAND-UP ELECTRIC COUNTERBALANCED TRUCK E18S / E20S

## 3,500 - 4,000 lbs. Capacity

#### Series 1346

- → The Series 1346 is perfectly suited for life at a busy loading dock. The low-height suspended platform, small footprint and robust frame are purposefully designed for highly challenging applications
- → The most spacious operator compartment in the industry combined with adjustable ergonomics and flexible foot placement reduces fatigue-related injuries throughout the work day
- → The heavy-duty chassis and wrap-around steel bumper protect the truck from impact damage that is common at loading docks and crowded staging areas
- → The low-profile front cover and nested mast rails increase visibility of the forks and provide line-of-sight to the drive tires when working inside small clearance containers
- → The interactive display unit includes on-board diagnostics and guided calibration to simplify troubleshooting and support scheduled maintenance

### **STANDARD & OPTIONAL EQUIPMENT**

#### STANDARD

- 36V electrical system
- 100% AC drive and lift motor technology
- Auto-deceleration with regenerative braking
- Automatic parking brake
- Linde Curve Assist (speed control)
- Voltage converter (12-volt / 300 Watt)
- Long-life electronic horn
- Forward steering (forks leading)
- = 18" x 7" x 12 1/8" cushion drive tires
- = 10" x 5" x 6 1/2" cushion steer tires
- 18.5" wide (E18S) battery compartment
- 20.5" wide (E20S) battery compartment
- Side battery removal with rollers
- 7 degree forward / 5 degree backward tilt with cushioned end stops
- Tilt Assist function
- Six-roller, Class II fork carriage
- 88" high overhead guard
- Overhead guard ready for drive-in rack
- Low step-height operating platform
- Suspended floorplate for vibration/impact isolation
- Cushioned operator compartment surfaces
- Fixed document holder
- Beverage holder
- Recessed tool storage
- Integrated tie-down cutouts for transport hook / chains
- Multi-function control handle
- Adjustable-height armrest controls
- Adjustable-height steering column
- Precise, on-demand hydrostatic steering system
- Full, proportional control of hydraulics
- Four-function main hydraulic control valve
- 5-micron filter for hydraulic system protection
- Dual, front worklights (halogen)
- Standard on/off key switch
- UL Type E construction
- Multi-function display unit with onboard diagnostics
- Guided, on-board calibration of sensors
- CAN bus communications
- Error Code display with detailed text
- Selectable performance modes
- Programmable travel speed
- Steering angle indicator
- Battery discharge indicator with interrupt
- Emergency disconnect button
- 1000-hr planned maintenance intervals
- 3-year / 6000-hr standard warranty
- Tool-free service panel access
- Operator manual (English)

#### OPTIONAL

- Lithium-ion configuration (36V)
- Lithium-ion battery and charger
- Reverse steering (forks trailing)
- = 18" x 7" x 12 1/8" non-marking cushion drive tires
- 10" x 5" x 6 1/2" non-marking cushion steer tires
- Static discharge strap
- 3-Stage mast with freelift
- 4-Stage mast with freelift
- Electronically-adjusted tilting range
- Tilt position memory
- Six-roller, Class II integrated sideshifter
- Class II hang-on sideshifter
- Various Class II fork configurations
- Various load backrest extension heights
- Multi-function control handle (inverted axis)
- Clamp release interlock control function
- Auxiliary function hydraulic hose lines
- Dual, front worklights (LED)
- Rear worklights (halogen / LED)
- Overhead guard mounted Bluespot / Redspot
- Keyless on/off power switch
- Access control by keypad and PIN
- Operator fan
- Amber flashing strobe light
- Back-up alarm
- Interior compartment light
- Fire extinguisher (2.5 lb)
- UL Type EE construction
- Cold-storage protection to -14 degrees F
- 1-year / 2000-hr warranty extension
- Operator manual (French / Spanish)









### **SERIES 1346 TECHNICAL DATA**

FEBRUARY 2020

	1.1	Manufacturer					LIN	DE		
	1.2	Model designation					18S	E	20S	
S	1.3	Power unit		Battery				Battery		
erist	1.4	Operation					inding		nding	
acte	1.5	Load capacity	Q	lbs	kg	3500	1588	4000	1815	
Characteristics	1.6	Load center	с	in	mm	24	600	24	600	
0	1.8	Axle center to fork face	x	in	mm	13.2	335	13.2	335	
	1.9	Wheelbase	у	in	mm	46.2	1174	48.2	1225	
Ŋ	2.1	Service weight (+/- 5.0%)	-	lbs	kg	8695	3945	9687	4395	
Weights	2.2	Axle load, with load, front/rear		lbs	kg	10976/1477	4980/670	12188/1400	5530/635	
We	2.3	Axle load, without load, front/rear		lbs	kg	4518/4408	2050/2000	5113/4573	2320/2075	
	3.1	Tire type, front / rear			3		n/cushion		n/cushion	
ş	3.2	Tire size, front					" x 12 1/8"		x 12 1/8"	
Tire	3.3	Tire size, rear					5" x 6 1/2"		x 6 1/2"	
els/	3.5	Wheels, number front / rear (X=driven)					2x/2		x/2	
Wheels/Tires	3.6	Track width, front	h	in	mm	35.5	902	35.5	902	
1	3.7	Track width, rear	b <sub>10</sub> b <sub>11</sub>	in	mm	6.7	170	6.7	170	
	4.1	Mast tilt, forward/backward	<b>U</b> <sub>11</sub>				° / 5°		/ 5°	
4	4.1		h	in	mm	88	2225	88	2225	
	4.2	Height of mast, lowered* Free lift*	h,		mm	63	1618	63	1618	
	4.4		h <sub>2</sub>	in	mm					
SL		Lift height*	н	in	mm	195	4960	195	4960	
Dimensions	4.7	Height of overhead guard	h <sub>6</sub>	in	mm	88	2235	88	2235	
men	4.8	Height of operating platform	h <sub>7</sub>	in	mm	8	200	8	200	
ā	4.19	Overall length	L,	in	mm	110	2792	112	2842	
	4.2	Length to fork face	I <sub>2</sub>	in	mm	68	1725	70	1775	
	4.21	Overall width	b <sub>1</sub> /b <sub>2</sub>	in	mm	42.5	1080	42.5	1080	
	4.22	Fork dimensions	s/e/l	in	mm	1.5 x 4 x 42	40 x 100 x 1067	1.5 x 4 x 42	40 x 100 x 1067	
	4.23	Fork carriage to ISO 2328, Class/Form A, B					2A		2 <b>A</b>	
	4.24	Width of fork carriage	b <sub>3</sub>	in	mm	38.6	980	38.6	980	
	4.31	Ground clearance with load, mast	m,	in	mm	3.1	78	3.1	78	
	4.32	Ground clearance with load, center of wheel- base	m <sub>2</sub>	in	mm	3.9	98	3.9	98	
	4.33	Load dimension $b_{12} x I_6$ crossways	<b>b</b> <sub>12</sub> <b>x I</b> <sub>6</sub>	in	mm	48 x 40	1219 x 1016	48 x 40	1219 x 1016	
	4.34	Aisle width predetermined load dimensions	Ast	in	mm	121	3082	123	3127	
	4.34.1	Aisle width for pallets 1000 x 1200 crossways	Ast	in	mm	127	3214	128	3259	
	4.34.2	Aisle width for pallets 800 x 1200 crossways	Ast	in	mm	125	3186	127	3231	
	4.35	Turning radius	Wa	in	mm	55	1400	57	1445	
0	5.1	Travel speed, with/without load		mph	kph	7 / 7.5	11.2 / 12.0	7 / 7.5	11.2 / 12.0	
ance	5.2	Lifting speed, with/without load		ft/min	m/s	65 / 107	0.33 / 0.54	61 / 107	0.31 / 0.54	
Ë	5.3	Lowering speed, with/without load		ft/min	m/s	95 / 85	0.48 / 0.43	95 / 85	0.48 / 0.43	
Performan	5.7	Gradeability, with/without load		%	%	1	7/20	17	7/20	
•	5.10	Service brakes				Electrical		Elec	trical	
	6.1	Drive motor rating (60 minute rating)			kW	4.	1 x 2	4.1	x 2	
ve	6.2	Lift motor, 15% rating			kW	9			9	
Drive	6.4	Battery voltage / rated capacity			V/Ah	36	/ 875	36 /	1000	
	6.5	Battery weight (nominal)		lbs	kg	2486	1128	2834	1286	
	10.1	Working pressure of attachments		psi	bar	2175	150	2175	150	
Add'I	10.2	Oil flow for attachments		gpm	l/min	8.5	32	8.5	32	
A	10.7	Mean noise level at driver's ear			dB(A)		68		68	

\* 88" / 195" Triplex Mast

NOTICE: Products are subject to change without notice. Our products are continuously being improved, all conditions, terms, and specifications are subject to change at any time.

### **SERIES 1346 TECHNICAL DRAWINGS**

February 2020





\*Refer to Technical Data Chart

### **FEATURES**



#### Linde Series 1346 - E18S / E20S Five Features

- Advanced Tilt Control: The advanced tilt control feature allows an operator to always have their forks in the position they need. With the click of a button, the tilt angle memory function automatically stops the mast at a stored postition.
- Performance Modes: The electronically controlled drive and hydraulic functions optimize performance and feature three operational modes: Performance, Productivity and Efficiency.
- **Short Turning Radius:** The Series 1346 utilizes dual drive motors, a nested mast design and a short wheelbase to make turning in the tightest of spaces possible.
- **On-Board Diagnostics:** Linde's on-board diagnostic system points to whatever issue needs to be resolved. This makes repairs faster by minimizing the diagnostic times required to get your truck back in service.
- Operator Compartment: The operator compartment has a multitude of features, including an adjustable steer tiller and control handle, coupled with the widest compartment in the industry, keeping an operator comfortable and productive all day long.













For more information on Linde Material Handling equipment, please contact:

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Шe



## ELECTRIC WALKIE / RIDER TRUCK EW30 / EW40 / EWR30 / EWR40 6,000 - 8,000 lbs. Capacity

Series 1101

- → We listened to the customer and designed a pallet truck that can withstand the most demanding duty cycle, along with making sure the operator is comfortable
- → The Series 1101 utilizes 100% AC motor technology with the latest controls, allowing the operator to smoothly operate the truck through dock work, transporting heavy loads, and order picking
- → The largest operator foot space in its class with a premium floor mat ensures enough space to comfortably change foot positioning
- → A one-piece cover provides noise reduction and full access to key components with 1,000 hour maintenance intervals

### **STANDARD & OPTIONAL EQUIPMENT**

#### STANDARD

- 48" long forks
- 27" fork spread
- Standard construction operating temperatures: +32°F to +120°F
- Smooth polyurethane drive tire Smooth Rubber -12" x 5"
- Single polyurethane load wheels 3.25" x 6.375"
- Heavy-duty casters
- Display
  - -Battery state of charge
  - -Hour meter
  - -Low battery lift interrupt
  - -Fault indicator
- Manual steering
- Key ignition switch
- 24V AC control electrical system
- Grab bar with soft grip
- AC traction motor
- Auto Deceleration System with regenerative braking
- 31.5" x 13.5" open battery compartment
- Electro-mechanical parking brake
- UL Classification "E"
- Electronic horn
- Ergonomically designed, impact resistant, aluminum reinforce control handle with twist grip control
- Steel pallet entry rollers
- Two-piece load wheel axles
- 3.25" lowered / 6" lift height / 9.25" overall raised
- Heavy-duty fork construction with reinforced fork tips
- Heavy-duty, lift linkage with lubrication fittings
- Cushioned poly mat

#### OPTIONAL

- UL Classification "EE"
- Electric power steering
- Battery rollers
- Convenience tray (battery-mounted)
- Audible alarm
- Travel alarm
- Easy Pick with coast control
- Fork lengths
- -36" long forks
- -42" long forks
- -60" long forks
- -84" long forks -96" long forks
- -144" long forks
- Drive tire
- -Rubber
- -Polyurethane
- -Non-marking rubber
- -Crowned polyurethane
- -Siped polyurethane
- Load wheels
  - -Single, dual and tandem
  - -2 bearing and 4 bearing
  - -Standard bearing and sealed bearing
- Load backrest
  - -48" high
  - -60" high
  - -72" high
- Application / Environmental Construction
  -Cooler/Freezer Package
  - -Wash Down Package
  - -Corrosion Package





#### **FEATURES**



#### Linde Series 1101 Five Features

- Motor Compartment Cover: The Series 1101 features a one-piece, lift off motor compartment cover. This thermosetting resin cover is a product of the latest scientific advances in the field of chemistry. In addition to its resistance to rust and corrosion, these covers offer superior impact strength, durability, and lifelong proper fit. The same rugged material is used today by most large construction machinery OEM's.
- **Operator controls:** The operator control handle features a heavy-duty cast design / steel poly construction. Soft-touch accelerator twist grips govern travel direction, speed, and also features automatic return to neutral.
- Drive Motor: The Series 1101 features a 24-volt, high power, AC drive motor. This high performance motor allows for maximum productivity and excellent reliability. Extended maintenance intervals for motors and complete drive systems are a direct result of this new AC technology.
- **Frame:** Truck frames feature fixed platform height and all seam-welded unitized construction. Plate steel contoured to shape for rigid strength provides maximum durability and protection for all vital components. The battery compartment is an integral part of the chassis, further adding strength to the frame.
- Travel Control: The AC motor controller provides exceptional flexibility by providing user tailored parameters to meet a wide variety of application requirements. The controller provides efficient use of battery voltage and has an extremely wide torque and speed range. In addition, full regeneration capability, smooth low speed control, and zero speed ramp hold applications are realized. Environmental protection is enhanced by the robust construction of the controller and the use of sealed wiring harness connectors to prevent moisture and contaminants from interrupting truck operation in all environments.

### **EW TECHNICAL DATA**

February 2020

	1.1	Manufacturer				LINDE				
Characteristics	1.2	Model designation				EV	EW30 EW40			
	1.3	Power unit				Electric		Electric		
	1.4	Operation				w	alk	Walk		
Chara	1.5	Load capacity	Q	lbs	kg	6000	2722	8000	3629	
	1.6	Load center	с	in	mm	Fork le	ngth / 2	Fork length / 2		
	1.9	Wheelbase	WBL	in	mm	See drawing		See drawing		
	2.1	Service weight (+/- 5.0%)		lbs	kg	1342	609	1316	597	
	3.1	Tire type, front / rear				Polyurethane		Polyurethane		
Weights	3.2	Tire size, front		in	mm	12 x 5	305 x 127	12 x 5	305 x 127	
>	3.3	Tire size, rear		in	mm	3.3 x 6.4	83 x 162	3.3 x 6.4	83 x 162	
	3.5	Wheels, number front / rear (X=driven)				1x/2		1x/2		
	4.19	Overall length	I <sub>4</sub>	in	mm	See drawing				
	4.2.0	Length to face of forks	I <sub>2</sub>	in	mm	37	940.9	37	940.9	
	4.21	Overall width	b,	in	mm	34.3	872	34.3	872	
SU	4.2.2	Fork dimensions	w <sub>3</sub>	in	mm	See drawing				
Dimensions	4.3.3	Aisle width*	Ast	in	mm	98.7	2507	98.7	2507	
Ē	4.35	Outer turning radius	TR	in	mm	See drawing				
	4.4	Lift	h <sub>3</sub>	in	mm	6.0	152	6.0	152	
	4.4.1	Lift from floor		in	mm	9.25	235	9.25	235	
	4.9	Height of tiller arm	h <sub>14</sub>	in	mm	58.9	1495	58.9	1495	
	5.1	Travel speed, with load		mph	km/h	3.5	5.6	3.5	5.6	
e	5.1.1	Travel speed, without load		mph	km/h	3.5	5.6	3.5	5.6	
Performance	5.8	Maximum gradeability with load		%		15		10		
Pe	5.8.1	Maximum gradeability without load		%		15		15		
	5.10	Service brake				Electric				
	6.1	Drive motor		hp	kW	5.4	4.0	5.4	4.0	
Drive	6.2	Lift motor		hp	kW	3	2.2	3	2.2	
à	6.3	Battery compartment dimensions		in	mm	31.5 x13.5 x open	796 x 341 x open	31.5 x13.5 x open	796 x 341 x open	
	6.4	Battery voltage		v			2	4		

\* Aisle width is calculated with 48" forks and a 40" wide pallet. Add 6-8" for operating clearance.

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\*Refer to Technical Data Chart

### **EWR TECHNICAL DATA**

February 2020

	1.1	Manufacturer				LINDE				
Characteristics	1.2	Model designation				EWR30		EWR40		
	1.3	Power unit				Electric		Electric		
	1.4	Operation				Walk / Ride		Walk / Ride		
	1.5	Load capacity	Q	lbs	kg	6000	2722	8000	3629	
	1.6	Load center	с	in	mm	Fork length / 2		Fork length / 2		
	1.9	Wheelbase	WBL	in	mm	See drawing		See drawing		
	2.1	Service weight (+/- 5.0%)		lbs	kg	1457	661	1430	649	
	3.1	Tire type, front / rear				Polyurethane		Polyurethane		
ghts	3.2	Tire size, front		in	mm	12 x 5	305 x 127	12 x 5	305 x 127	
Weights	3.3	Tire size, rear		in	mm	3.3 x 6.4	83 x 162	3.3 x 6.4	83 x 162	
	3.4	Caster wheel dimension		in	mm	4 x 2.5	102 x 64	4 x 2.5	102 x 64	
	3.5	Wheels, number front / rear (X=driven)				1x/2		1x/2		
	4.19	Overall length	I <sub>4</sub>	in	mm	See drawing				
	4.2.0	Length to face of forks	$I_2$	in	mm	45	1142	45	1142	
	4.21	Overall width	b,	in	mm	36	916	36	916	
su	4.2.2	Fork dimensions	w <sub>3</sub>	in	mm	See drawing				
Dimensions	4.3.3	Aisle width*	Ast	in	mm	106.2	2698	106.2	2698	
ā	4.35	Outer turning radius	TR	in	mm	See drawing				
	4.4	Lift	h <sub>3</sub>	in	mm	6.0	152	6.0	152	
	4.4.1	Lift from floor		in	mm	9.25	235	9.25	235	
	4.9	Height of tiller arm	h <sub>14</sub>	in	mm	58.9	1495	58.9	1495	
	5.1	Travel speed, with load		mph	km/h	5.5	8.8	5.5	8.8	
mance	5.1.1	Travel speed, without load		mph	km/h	9.5	15.3	9.5	15.3	
Performa	5.8	Maximum gradeability with load		%		15		10		
Pe	5.8.1	Maximum gradeability without load		%		15		15		
	5.10	Service brake				Electric				
	6.1	Drive motor		hp	kW	5.4	4.0	5.4	4.0	
	6.2	Lift motor		hp	kW	3	2.2	3	2.2	
Drive	6.3	Battery compartment dimensions		in		31.5 x13	31.5 x13.5 x open 31.5 x13.5 x open		.5 x open	
	6.3	Battery compartment dimensions			mm	796 x 341 x open		796 x 34	796 x 341 x open	
	6.4	Battery voltage		v		24				

\* Aisle width is calculated with 48" forks and a 40" wide pallet. Add 6-8" for operating clearance.

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<sup>\*</sup>Refer to Technical Data Chart







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## ORDER PICKER V 15 3,000 lbs. Capacity

Series 1355

- → The Series 1355 utilizes 100% AC Motor Technology along with the latest controls allows the operator to smoothly operate the truck
- → Operators benefit from sealed critical harness connections and solid-state components
- → Linde's well known ergonomic controls provide a sure grip increasing operator productivity and confidence
- → A one-piece low profile design cover requires no tools and provides better visibility and full access to key components
- → CAN-bus design and diagnostics can be controlled through a single point plug and fault codes can be easily displayed

### **STANDARD & OPTIONAL EQUIPMENT**

#### STANDARD

- Heavy duty pallet clamp opening range 1" to 5.4"
- 42" x 27" operator platform
- 42" x 1.5" x 4" standard tapered forks
- 13.5" x 5.3" polyurethane drive tire
- 5" x 4" articulating tandem load wheels
- 38.7" x 14.6" x 32" height battery compartment
- 24V electrical system
- Standard construction
- 42" outside dimension (base width basearms)
- UL classification type "E"
- Key switch start
- Steering returns to center upon start
- Curve control
- Powered lowering
- Stationary multi-function control handle
- Operator sensor in handle
- Proportional lift with regenerative 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°</li>
- 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
- SB 350 "Red" battery conductor
- Programmable travel speeds
- Slack chain indicators
- Cantilevered overhead guard
- Low step height
- Protective wire mesh mast guard
- 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
- 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
  - BlueSpot<sup>™</sup> activated forward
  - BlueSpot<sup>™</sup> activated reverse
  - One light to shine on load
- DC to DC converter 25 amps / 400 watts at 12 volts
- Motion alarm forward and reverse
- Motion alarm when operation timed out
- Parts manual
- Polycarbonate mast protection
- Various battery connector colors

Mast Dimensions									
	Maximum Fork Height	Overall Lowered Height	Overall Extended Height						
	in. (mm)	in. (mm)	in. (mm)						
	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)						
0.01	265.5" (6744)	118.3" (3005)	354.0 ( 8992)						
3-Stage	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)						







### **V15 TECHNICAL DATA**

February 2020

	1.1	Manufacturer				LINDE				
	1.2	Manufacturer's model designation				V15 - 24V V15 - 36V			- 36V	
stics	1.3	Power unit				Battery				
Characteristics	1.4	Operation				Order Picker				
arac	1.5	Load capacity	Q	lbs	kg	2998.3	1360	3000	1360	
δ	1.6	Load center	с	in	mm	23.6	600	24	600	
	1.9	Wheelbase	У	in	mm	56.1	1425	56.1	1425	
6	2.1	Service weight		lbs	kg	7562	3430	9480	4300	
Weights	2.2	Axle loadings with load front / rear		lbs	kg	2249/8422	1020/3820	3064/9546	1390/4330	
N Ne	2.3	Axle loadings without load front / rear		lbs	kg	4222/3340	1915/1515	5159/4321	2340/1960	
H	3.1	Tires				Polyurethane				
	3.2	Tire size, front		in	mm	13.5x5.3	343x135	13.5x5.3	343x135	
els	3.3	Tire size, rear		in	mm	4.9x4.1	125x105	4.9x4.1	125x105	
Wheels	3.5	Wheels, number front / rear (x=driven)				1x	1x/4 1x/4			
	3.6	Track width, front	<b>b</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	
	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	I,	in	mm	118.9	3020	118.9	3020	
<u>s</u>	4.20	Length to fork face	$I_2$	in	mm	76.6	1945	76.6	1945	
Dimensions	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	
imer	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>b</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	$\mathbf{b}_6$	in	mm	49	1245	67	1702	
	4.31	Ground clearance, mast	m,	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	
e	5.1	Travel speed, with / without load		mph	kmh	45/75	.23/.38	81/104	.41 /.53	
man	5.2	Lift speed, with / without load		fpm	m/s	79 /.40		79 /.40		
Performance	5.3	Lowering speed, with / without load		f/m	m/s	0.4/0.4		0.4/0.4		
ď	5.10	Service brakes		s		Regenerative		Regenerative		
Drive	6.4	Battery voltage / rated capacity		V/Ah		24/750		36/625		
ă	6.5	Battery weight (min)		lbs	kg	1444	655	1841	838	
Others	8.1	Type of drive				AC Microprocessor		AC Microprocessor		
ŧ	8.4	Noise level at operator's ear		dB(A)		<7	0	<7	0	

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

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BATTERY COMPARTMENT									
	Battery	Compartment D	Min.Weight						
Voltage	"x" (width)	"y" (length)	y" (length) "z" (height) Requ						
	in. (mm)	in. (mm)	in. (mm)	lbs. (kg)					
24	38.7 (982)	14.6 (371)	32 (812.8)	1444 (655)					
36	38.7 (982)	14.6 (371)	32 (812.8)	1847 (838)					







#### **Linde Series 1355 Five Features**

- **Operator Comfort:** Large operator compartment, foot room, and brake area with a premium floor mat to ensure enough space to comfortably change foot positioning throughout the day.
- **Open Access to Components:** Full access to key components is achieved without tools and directly in front of technician.
- Curve Control: Linde curve control automatically reduces driving speed depending on steering angle, ensuring an extra level of safety.
- Unique Clamp Design: Automatically clamps and centers pallets with any stringer, ranging from 1" to 5", eliminating the need for standardization of pallets or the use of workarounds.
- **Control Handle:** The multi-function control handle is stationary, allowing a solid 4-point stance position in the operator compartment with the use of a thumb tiller to travel. This handle has eliminated any wrist movements while keeping the operator feeling attached to the truck at all times.













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