

Linde Material Handling

Linde

Series 346

KION
GROUP

KION North America

Series 346

346 Basic dimensions



Standard: 80"
Low: 78"

E18 / E20: 79"
E20C / E20P: 86"



Width (all models):
— 42" Cushion tires
— 46" SE tires



Overhead guard
for drive-in rack

Series 346

Available models (36-volt & 48-volt)

Three-wheel configuration

Model	Capacity	Height	Length
E18	3,500 lb	80"	79"
E20	4,000 lb	80"	79"



Four-wheel configuration

Model	Capacity	Height	Length
E20C	4,000 lb	80"	86"
E20P	4,000 lb	80"	86"

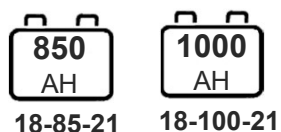


Series 346

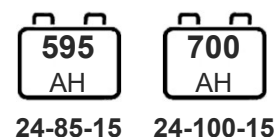
346 Battery information (25" compartment)

Lift-out

36-volt



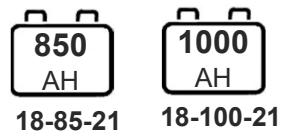
48-volt



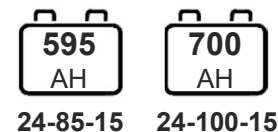
Slide-out

Slide pad adds 0.25"

36-volt



48-volt



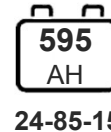
Roll-out

Rollers add 2.25"

36-volt



48-volt



*AH capacity using standard, 6-hour rate

Series 346

Operator compartment

Features

- Small diameter steering wheel
- Large diameter cup holder
- Tool storage compartments
- Ergonomics for wide range of drivers
- Informational display unit



Series 346

Operator compartment

- Driver comfort leads to high-productivity
- Full-suspension seat (standard)
- Adjustable armrest with fingertip controls
- Small diameter steering wheel
- **Low step height for easy entry/exit**



Competition
Non-suspension
Semi-suspension



Series 346

Ergonomic features

- Adjustable steering column
- Tilt-up armrest with fingertip controls
- Easy entry/exit on both sides
 - Left-side PRIMARY
 - Right-side SECONDARY
- Adjustable, full-suspension seat



Series 346

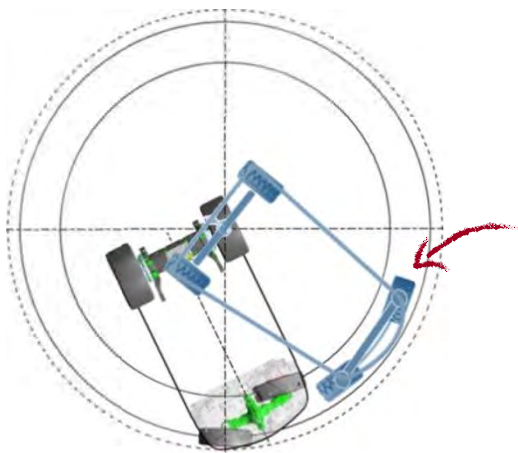
Linde exclusive: Combi-axle



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- Provides the same turning behavior of three-wheel trucks
- High articulation point improves ride and stability
- Cushioned mounting block to the counterweight



Common Features

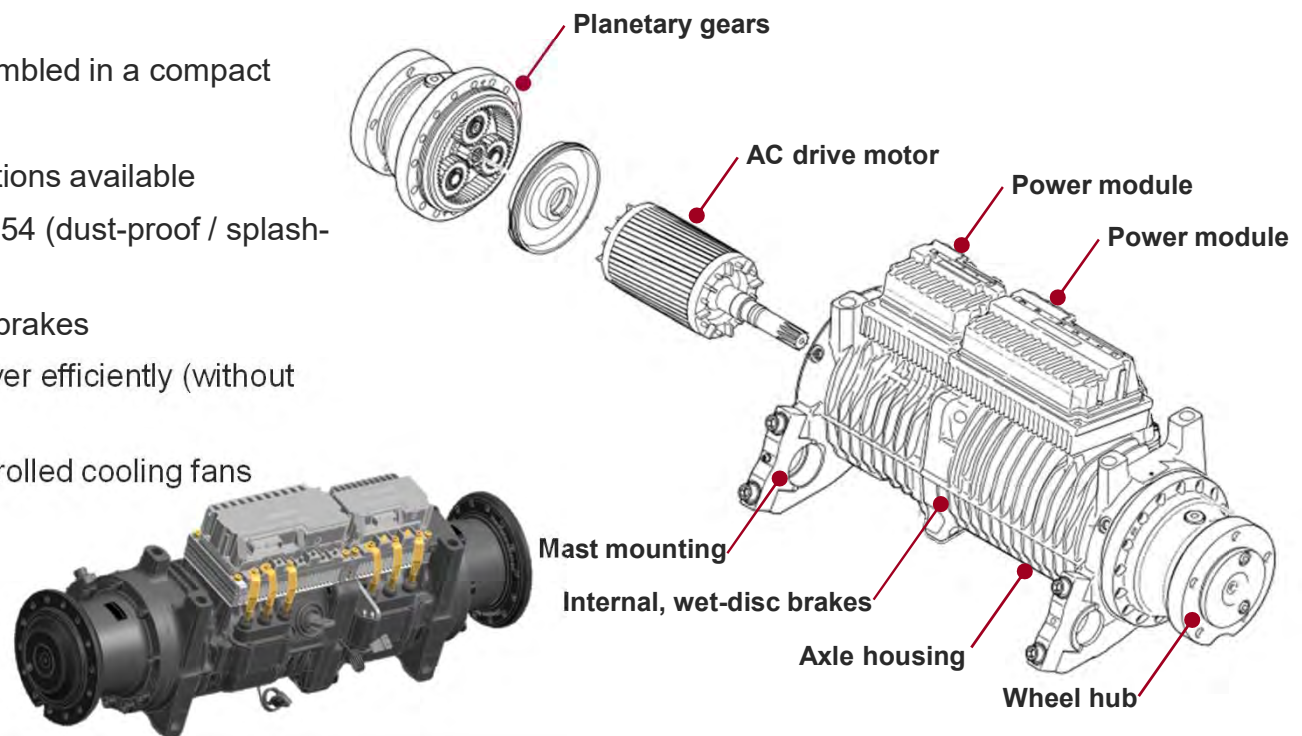
Series 346 & 1347 – Common Features

Linde exclusive: Compact drive unit



Technical features

- Dual in-line, AC motors assembled in a compact housing
- 36-volt and 48-volt configurations available
- Enclosed and protected to IP54 (dust-proof / splash-proof)
- Zero-maintenance, wet-disc brakes
- Planetary gears transmit power efficiently (without differential)
- Integrated, temperature-controlled cooling fans



Series 346 & 1347 – Common Features

Compact drive axle

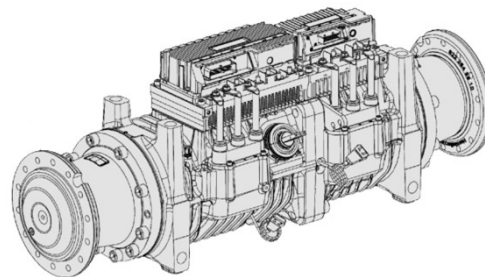


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Customer benefits

- Compact unit reduces part count for simpler maintenance
- Eliminates cost of brake failures and brake maintenance
- IP54 enclosure permits E-truck use in IC-truck environments
- Planetary gearing ensures optimized traction in all conditions
- Integrated fans support use in very hot environments
- Simple replacement of components through wheel ends



Series 346 & 1347 – Common Features

Electrical power modules

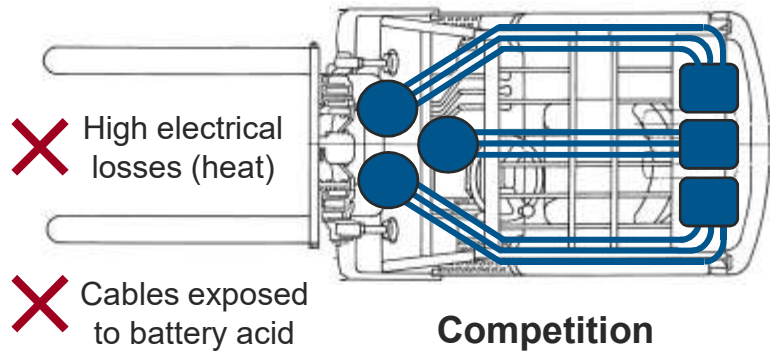


Linde Material Handling

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Customer benefits

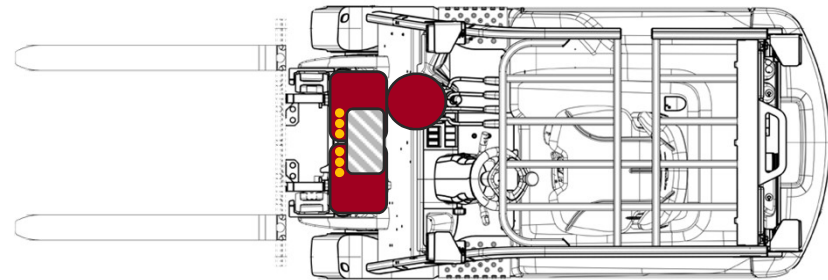
- **Highest energy-efficiency among competition**
- Lower heat generation (energy loss) means more energy available for working
- Eliminate cables that generate heat and energy loss
- Simple, uncluttered layout for easy service
- Dedicated cooling fans for use in hot environments



Competition



Very low
electrical losses



Series 1347

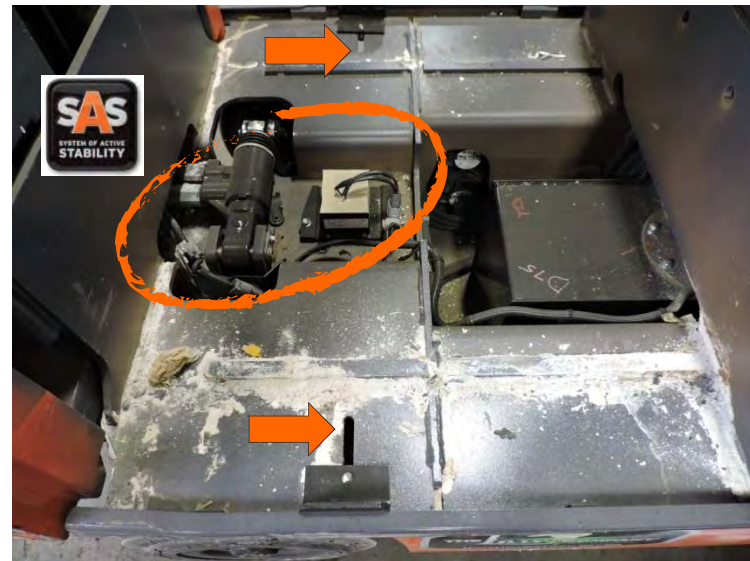
Series 346 & 1347 – Common Features

Reliability through good design

Series 1347



Competitor



*Critical components under battery

Series 346 & 1347 – Common Features

Reliability through good design

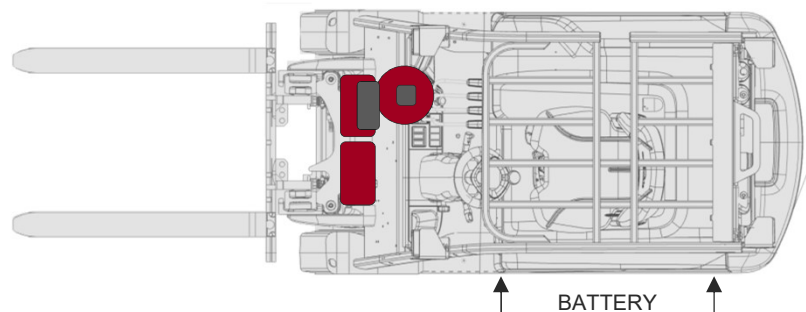
Features

- Protection of critical components
 - Parts within chassis for impact protection
 - Guarded from corrosive battery acid
- Short connection points; not routed through multiple chassis cut-outs.
- Technicians are not exposed to battery acid during service.

Series 1347

Mounted in forward compartment

Electronic power modules
Cooling fans
Pump / pump motor

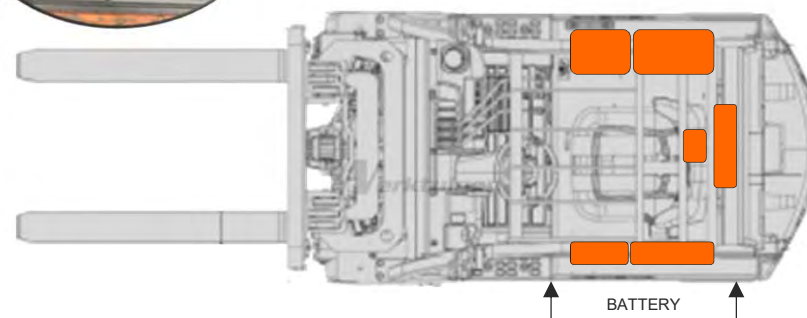


Competitor



Mounted under the battery

Electrical power modules
Cooling fans
Pump / pump motor
Electronic stability system (SAS)



Series 346 & 1347 – Common Features

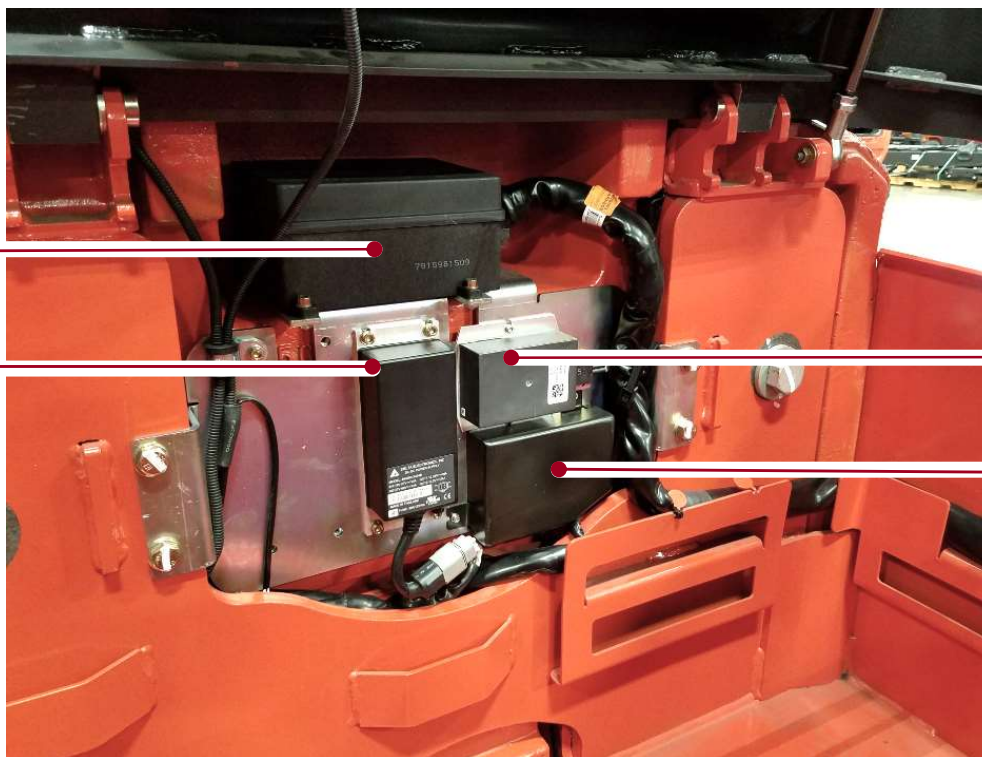
Component locations

⚙️ Fuse box

⚙️ DC/DC
converter

⚙️ DC/DC
converter

⚙️ Charging
circuit



Series 346 & 1347 – Common Features

Emergency power disconnection



Features

- Easy and fast to operate during an emergency
- **Keeps eyes ahead**
- Keeps left hand on steering wheel



! Difficult to find during emergency

Series 346 & 1347 – Common Features

Curve Assist

- Standard equipment on Series 1347
- **Electronically-controlled reduction of speed while turning**
- Safer and more efficient operation with a **secure drive feeling**
- Reduced energy consumption and reduced tire wear
- Electronic differential control for stable traction in slippery conditions



Series 346 & 1347 – Common Features

Mast enhancements

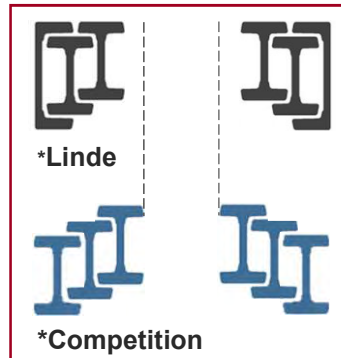


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Features

- Narrow rail configuration for increased viewing window
- Deep channel profile for high strength
- C-channel and interlocking I-beam for maximum strength
- Same mast across all capacities

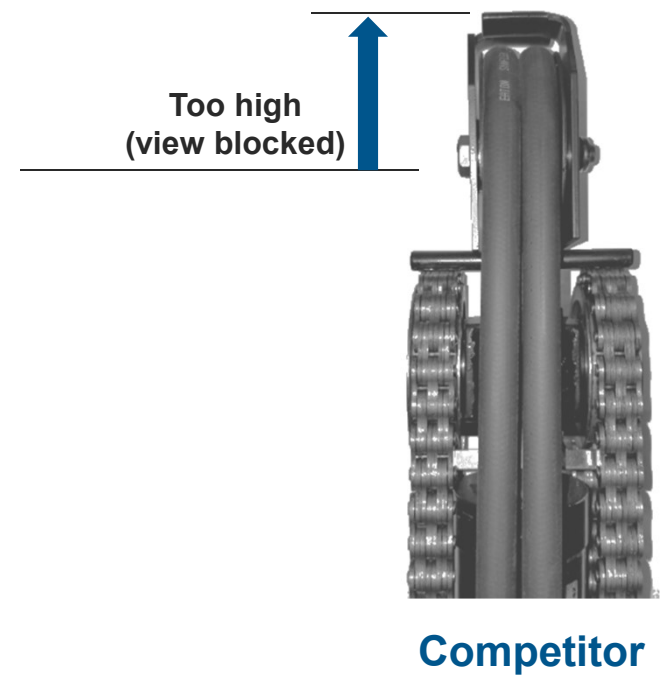
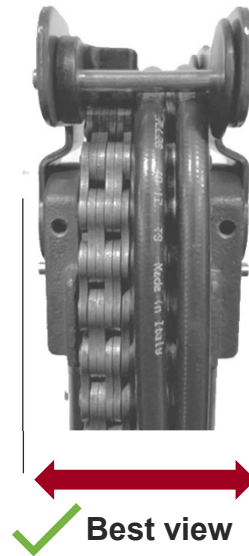
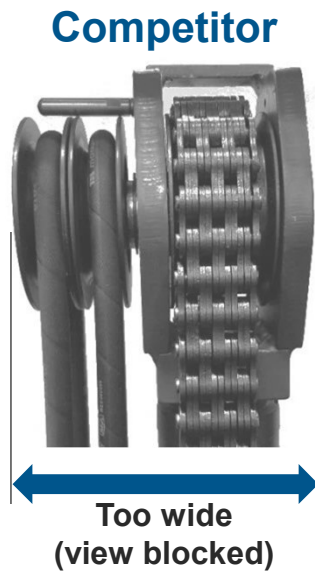


Series 346 & 1347 – Common Features

Auxiliary hose routing



- **Hoses-over-chains** configuration for auxiliary functions
- Single hose lines for individual replacement
- **BEST VISIBILITY**



Series 346 & 1347 – Common Features

Auxiliary hose lines

Features

- Single or double auxiliary functions
- Hose routing without large, metal guides
- Segmented design for easy replacement
- High-visibility concept
- Fast replacement of carriage-side hoses

