

ERC

030-040VA



Truck shown with optional equipment

Electric Rider Trucks 3,000-4,000 lbs.

Alternative Fuel-Ready



Yale Industrial Grade

Tough, industrial applications require industrial grade electric rider forklift trucks that add productive value, operate at maximum uptime, perform at demanding performance levels, and require minimal cost to operate. Yale® ERC-VA lift trucks are designed and built with Industrial Grade Critical Components, providing outstanding productive value and economic life. It's a difference you can count on!



Motors

Electric motors ensure the lift truck travels and lifts at speeds required for maximum productivity. AC Motors eliminate brushes, reducing maintenance costs. Steering motor functionality is integrated into the lift pump and motor assembly, simplifying the system and increasing reliability. All motors are insulated with Class H insulation for superior heat resistance.

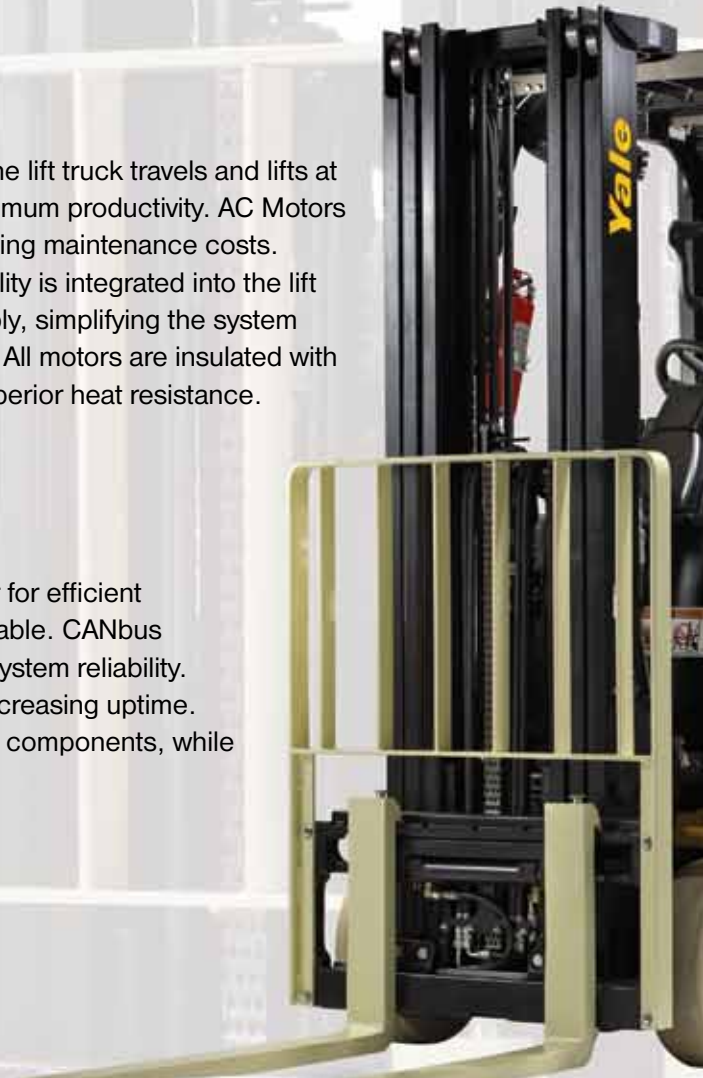
Electrical System

Linking the electronic components of a lift truck together for efficient operation, the electrical system must be durable and reliable. CANbus technology reduces wiring and connections, improving system reliability. Sealed electrical connections resist moisture and dirt, increasing uptime. The innovative thermal management system protects key components, while ensuring maximum productivity.



Drive Axle

The drive axle of a lift truck is required to absorb significant forces during normal operation. High strength gears and shafts resist stress from quick directional changes. The tough cast housing absorbs shock and vibration. Power Assisted Brakes reduce brake wear and strain on drive unit components.



Critical Components



Hydraulics

Hydraulics are the “muscles” of a lift truck, providing the force necessary to lift heavy loads all shift long. O-Ring Face Seal fittings resist leaks. The 10 micron hydraulic filter helps keep the hydraulic fluid clean. Cast iron “stacked” valve sections provide excellent rigidity.

Steer Axle

Steer axles support the significant weight of the counterweight, while being subjected to road shocks and vibration. Tough cast ductile iron axles provide one piece integrity for outstanding durability. Tapered roller bearings absorb multiple loading forces, improving reliability. The Yale Continuous Stability System enhances truck stability in a simple, maintenance free design, without compromising uneven surface travel.



Mast

A lift truck’s mast is required to absorb significant stress during lifting and lowering operations, without incurring excessive maintenance downtime. Canted load rollers absorb front to back and side to side forces for better durability and reduced adjustments. Full face contact of rollers prevents excessive wear of the channel, prolonging roller life.



Frame

The unitized design and the welded steel construction of the Yale® ERC-VA frame provide better rigidity and excellent protection for the internal components. The exceptional strength and durability of the frame are designed and tested using computer generated Finite Element Analysis.

Yale ultimate productivity

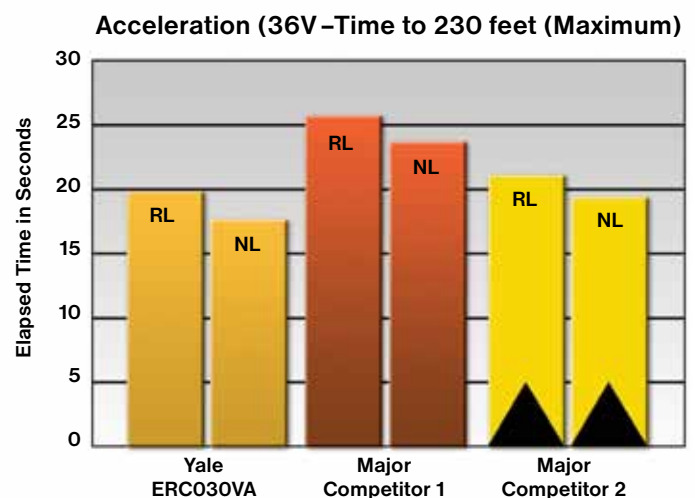
Performance and productivity are standard equipment on every Yale® truck. With the ERC-VA series, productivity cost savings are achieved through lower truck operating expenses, reduced maintenance costs, extended maintenance intervals, and increased throughput.



All trucks shown with optional equipment

Available in 36 and 48 volts, ERC-VA trucks are designed to meet and exceed your application requirements. All models come standard with cool running, low maintenance AC traction and hydraulic motors.

With a best in class acceleration rate, the Yale E030-040VA offers greater productivity.



The ERC-VA series utilizes proven AC technology coupled with the “Intellix” VSM, providing enhanced performance throughout the usable battery discharge cycle. This highly efficient system also provides **longer battery run time** for increased throughput.

AC motors provide powerful acceleration, fast travel speeds (both with and without a load), and fast lift/lower speeds. The innovative **Thermal Management System** keeps productivity high while protecting key truck components.

Four **operator selectable performance modes** and the innovative “Extended Shift” functionality allow the truck’s performance to be tailored to the customer’s application as well as the operator’s skill level, increasing efficiency.

Operator comfort is enhanced on the ERC-VA with increased floor space, improved operator seat position, and non-cinching seat belt. Reverse driving is made easier with the rear drive handle. The optional **Automatic Park Brake** automatically sets when the truck stops, simplifying motions for the operator.



Selectable performance modes



Enhanced operator comfort



Longer battery run time

ultimate
performance

Yale **intelligent ergonomics**

Operators prefer Yale® trucks. Operator comfort enhances productivity and reduces fatigue. With maximized visibility, smooth, precise mast positioning, low-effort steering, and “human-engineered” operating controls, everything about these trucks makes them easy to operate.



All trucks shown with optional equipment

The Yale® ERC-VA is an “operator’s truck” with large, textured grab handles, deep, anti-skid step for easy entry and exit, thumb-actuated directional controls, seat-side power disconnect, spacious, easy-to-reach storage areas on the cowl, and a tilt steering column with optional tilt-memory and telescoping for reduced operator fatigue.



The ERC-VA series open floor plate design maximizes the available space for the driver's feet, providing up to **16% greater floor space**. Power assisted braking reduces brake pedal effort. Placement and angles of accelerator and brake pedal provide maximum operator comfort. The extra-thick floor mat absorbs shock and reduces operator fatigue.

The operator's seat is precisely positioned to provide a more comfortable, efficient operator position, enhancing visibility through the mast, resulting in less operator fatigue. The standard steering column is infinitely adjustable. The **optional Telescoping Steer Column with Tilt Memory** provides superior adjustability to accommodate a wide range of operator sizes.

Rear driving comfort has been enhanced with a convenient optional **rear drive handle with horn button**. The rear drive handle creates a comfortable, secure reverse driving position. Non-cinching seat belts provide superior operator comfort.

The optional Yale **Accutouch minilever electro-hydraulic controls** offer an excellent ergonomic design with shorter reach and throw and considerably less effort required to operate versus mechanical hydraulic levers. The fully-adjustable armrest with palm rest is contoured for maximum comfort.

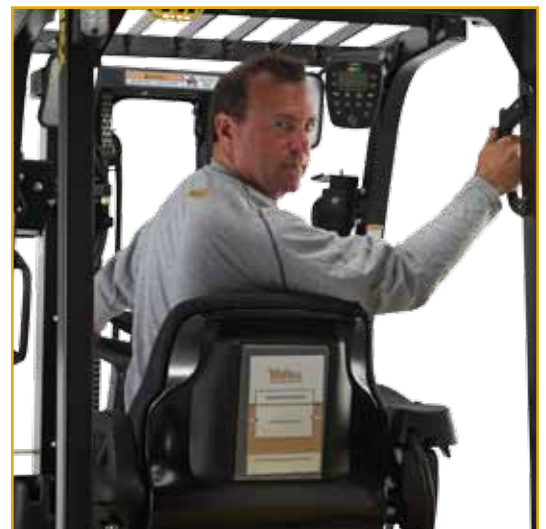
The standard hydraulic controls and the optional Accutouch minilever electro-hydraulic controls incorporate a standard thumb activated directional control switch.



Standard hydraulic controls



Superior floor space



Rear driving comfort

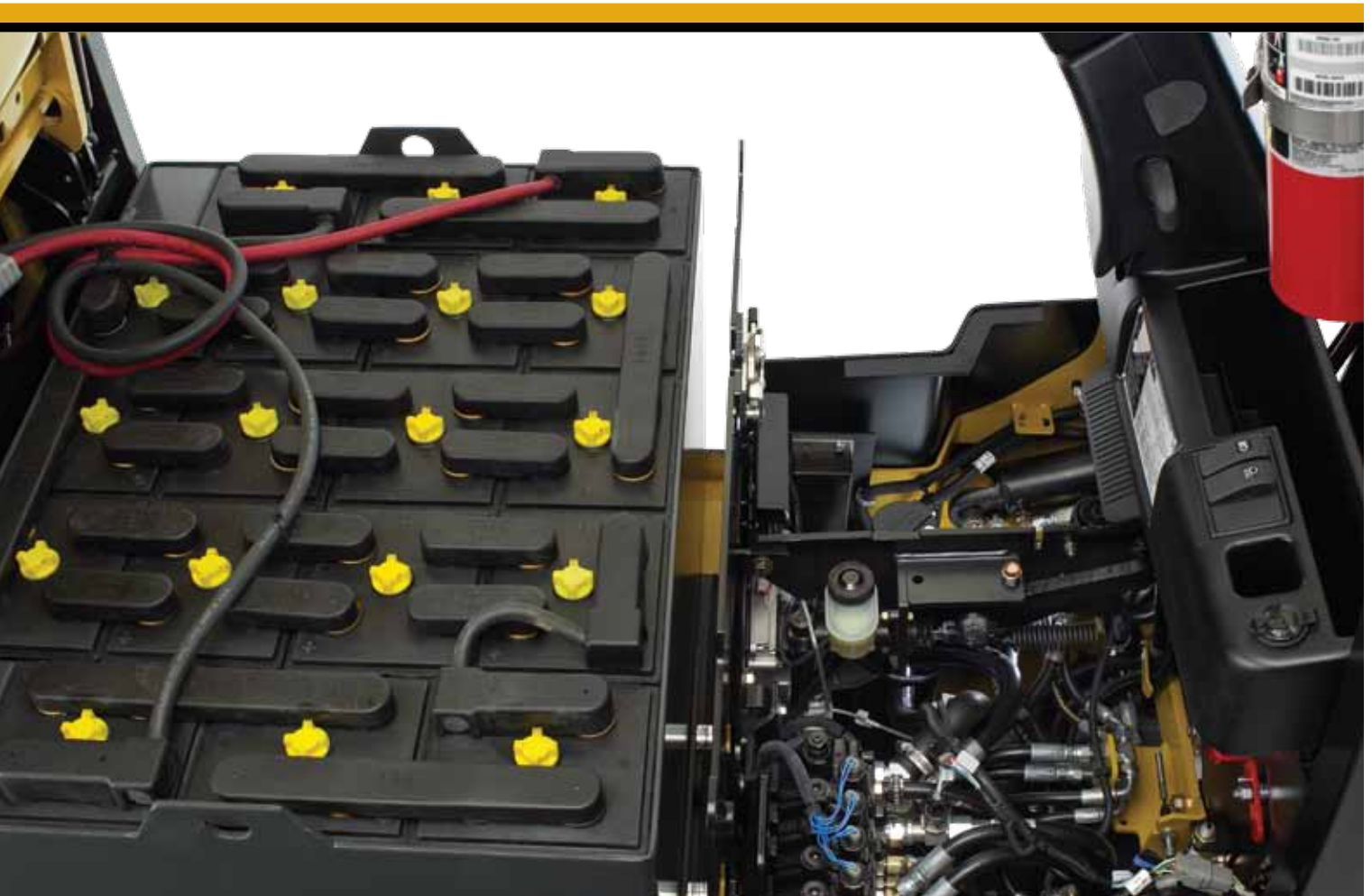


Optional Accutouch minilever

innovative
design

Yale gold service

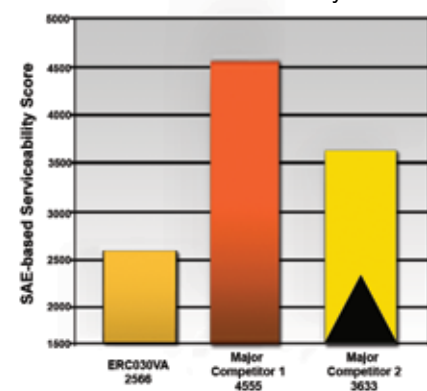
Not only is the ERC-VA series designed to require less maintenance; it is also designed to be extremely easy to service. The rear-opening, one-piece steel hood and the on-board diagnostics of these trucks is designed with service details in mind. The outstanding component access makes servicing fast, easy, and convenient. It's the new standard in truck serviceability.



Truck shown with optional equipment

At Yale, our engineers have equipped the ERC-VA series trucks with easily-removable floor plates, a rear-hinged hood that opens to nearly 80 degrees, common-sense wire and hose routing, clearly numbered wires with sealed connectors, CANbus technology, and brushless AC motors. All make the VA series easy to service and maintain.

This chart represents Society of Automotive Engineers (SAE) based rating evaluating speed and difficulty of over 30 service routines. Lower score indicates easier serviceability.



Yale has **reduced regular service requirements** on the ERC-VA series truck. Standard AC traction and hydraulic motors eliminate brushes and associated rigging, reducing maintenance. The efficient AC electrical system only requires one contactor, eliminating directional contactors. Motor controllers are mounted on finned heat sinks with integral cooling fans, greatly reducing heat.

Optional **battery side extraction with rollers** and a new low-profile side gate with quick release mechanism and traction cutout provide quick, safe, and efficient battery access and changing.

Two-piece floor plate allows for quick and easy service access. **Removable side panels** provide additional entry to key components.

The **Intellix VSM (Vehicle Systems Manager)** continuously monitors and controls all major truck functions for efficiency and proper operation. The innovative ERC-VA display alerts the operator of any system concerns.

Hour meters for truck, traction and hydraulic systems are accessible through the display. Extensive **on-board diagnostics** are also incorporated into the display to communicate service codes to the trained technician, enabling quick and accurate repairs.

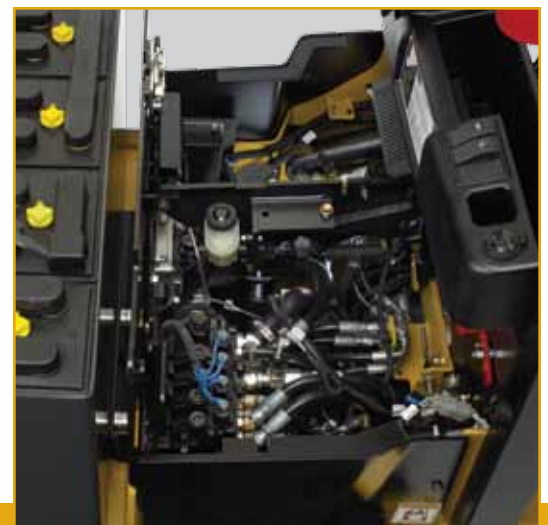
Power Assisted Braking helps reduce stress on key drive unit and braking components, increasing component life. Auto Deceleration System reduces the demand on the brakes, further improving brake life.



Intellix Vehicle Systems Manager



Innovative display



Easy service access

maximum
access

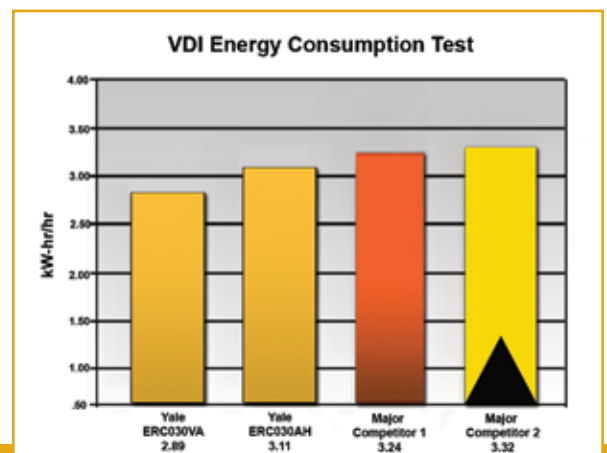
Yale **low cost of ownership**

The purchase price of a truck is only a small part of its overall cost. A lift truck's cost of ownership is the largest portion of dollars spent and includes such elements as periodic maintenance, unscheduled repairs, brakes, and power costs. Yale engineers focused on operating cost savings with reduced maintenance requirements, superior serviceability, enhanced durability, and extended service intervals.



All trucks shown with optional equipment

The highly efficient design of the ERC-VA improves battery shift life, saving dollars in energy costs, as well as increasing productivity through improved uptime. The Yale® ERC-VA series offers substantial operating cost savings over competitive models.



Source: NMHG Counterbalanced Development Center

ERC-VA series trucks provide tremendous flexibility to **customize the truck's hydraulic and traction performance** to the application. Whether you require extended battery shift life, aggressive hydraulic performance or fast travel speeds for long hauls across a factory floor, your trained Yale technician can maximize your VA's performance.

AC traction and hydraulic motors completely eliminate brushes and associated rigging, **reducing maintenance costs**. The system is further simplified by combining the hydraulic and steering functions into one pump and motor assembly.

A variety of drive and steer tires are available to offer greater stability and durability. An optional hydraulic accumulator affords shock and vibration dampening to the load, the truck, and the operator. Various environmental packages are available including UL EE and cooler / freezer options, ensuring the right truck for the application.

The **Auto Deceleration System** automatically slows the truck when the operator's foot is removed from the accelerator, reducing brake usage and associated brake maintenance requirements.

The unique **Power-Assisted Braking** system further increases brake and drive train life by automatically utilizing traction motor braking in proportion to operator brake pedal pressure, reducing the demand on the service brakes. The rugged drum-type brakes feature a strengthened "backing plate" for excellent durability.



Brushless motors



Cooler/Freezer options



Excellent battery shift life

intelligent
investment

Yale environmentally trustworthy

At **Yale**, we are developing and producing lift trucks that improve efficiency and reduce energy consumption for our customers' operations.

Yale has been a leading producer of zero emission trucks for years, and in 2009 we rolled out a new generation of innovative, even more efficient trucks than ever before. We are collaborating on next generation energy technology to enable a broader group of customers to more easily make the switch from internal combustion engine trucks to zero emission electric trucks.

Zero emission electric powered lift trucks—Yale is one of the largest volume producers of zero emissions electric lift trucks in the North American market. The company is among the earliest adopters of energy efficient AC motor and controller technology. Our continued pursuit of improved energy efficiency is affirmed by competitive testing which shows that our electric rider product offers the best energy efficiency (energy used per load moved) of the leading lift trucks in its class in North America.

Green innovations—For our electric trucks, Yale has introduced a system that recaptures energy into the truck during braking. This energy is then reused, lowering the overall energy consumption of the truck. Through innovative engineering, we reduce non-productive energy use throughout the vehicle by means of weight reduction, drive train efficiency (patents pending) and hydraulic system efficiency. Yale is among the first to use working fuel cells in actual applications.



Zero Emissions



Working Fuel Cells

Yale application matched performance

From tough, short shuttle applications or long runs, to ramp usage, the **Yale® ERC-VA** is built for varied applications. Adjustable performance parameters allow for customization to the specific needs of the application or the operator. The Extended Shift functionality provides an excellent balance between battery run time and truck productivity.

- **Return to Set Tilt** option brings the load to a preset position when tilting for easy operation.
- **Operator Selectable Performance Modes** allow varying levels of truck performance.
- **Rapid Charge** option further improves productivity by eliminating battery changes.
- **36 or 48 volt systems** provide excellent performance.
- **Extended Shift** can be disabled for increased productivity levels.



Return to Set Tilt Option



Operator Selectable Performance Modes



36 or 48 Volt Control System Option

ERC-VA highlights/options



Dependability highlights

	ERC-VA
AC traction and hydraulic motors	Std
Intellix VSM (Vehicle Systems Manager)	Std
Double sealed electrical connections	Std
Electronic horn	Std
O-ring face seal hydraulic fittings	Std
Power Assisted Braking	Std
Canted, full face mast rollers	Std
Tough, cast ductile iron steer axle	Std
High strength drive axle gears and shafts	Std

Dependability options

	ERC-VA
Accumulator	Opt
Full LED Light Package	Opt
Impact Monitor	Opt
Operator Daily Checklist	Opt
Hydraulic System Monitoring	Opt
Red (HI-VIS) ELR (Emergency Locking Retractor) Non-cinch Seat Belt with or without Start Interlock	Opt

Productivity highlights

	ERC-VA
Transistorized AC powered traction control with smooth directional changes	Std
Brushless AC traction and hydraulic motors	Std
On-demand power steering	Std
Enhanced display	Std
Advanced Thermal Management System	Std
Transistor hydraulics	Std
36 volt power	Std
Auto Deceleration System (automatically slows truck when accelerator pedal is released)	Std
Extended Shift functionality	Std
Operator selectable performance modes	Std
48" high load back rest extension	Std
Type "E" UL construction	Std

Productivity options

	ERC-VA
Accutouch e-Hydraulic Mini-levers with horn and thumb directional control	Opt
Foot Directional Control	Opt
48 volt power	Opt
10 degree fwd/5 degree back (Bottler's) tilt	Opt
Return to Set Tilt	Opt
Various mast heights	Opt
Integral sideshifter	Opt
Cooler / Freezer package	Opt
Various tire options	Opt
Various light packages	Opt
Audible Alarm - Reverse Operation	Opt
Visible alarm - amber LED strobe - continuous	Opt
Rapid Charge	Opt
Red (HI-VIS) ELR (Emergency Locking Retractor) Non-cinch Seat Belt with or without Start Interlock	Opt
Low Mount Display	Opt

Ergonomic highlights

	ERC-VA
Ergonomically designed contoured, cushioned seats	Std
Non-cinching seat belt	Std
Seat belt and hip restraint	Std
Excellent maneuverability	Std
Operator Interface Display	Std
Hi-Vis mast	Std
Seat-side mechanical hydraulic control levers	Std
Tilt steering column	Std
Wide open floor	Std
Power Assisted Braking	Std
Low effort brake pedal	Std
Low height entry step	Std
Rubber floor mats	Std
Seat-side Thumb Activated Directional Control	Std

Note: Std = Standard, Opt = Optional.

Truck performance may be affected by the condition of the vehicle, how it is equipped and the application. Consult your Yale® Industrial Truck Dealer for further information. Specifications are subject to change without notice.

ERC-VA highlights/options



Ergonomic options

	ERC-VA
Accutouch e-Hydraulic Mini-levers with horn and thumb directional control	Opt
Foot Directional Control Pedal	Opt
Telescoping Steer Column with Tilt Memory	Opt
Return to Set Tilt	Opt
Full suspension seat in cloth or vinyl	Opt
Side battery removal with battery rollers	Opt
Operator's compartment dome light	Opt
Reverse drive handle with horn	Opt
Automatic Park Brake	Opt
Red (HI-VIS) ELR (Emergency Locking Retractor) Non-cinch Seat Belt with or without Start Interlock	Opt
Low Mount Display	Opt

Service highlights

	ERC-VA
Easy service access	Std
Intellix VSM (Vehicle Systems Manager)	Std
Advanced on-board diagnostics and truck set-up using display	Std
Fully integrated CANbus control	Std
Advanced Thermal Management System	Std
Brushless AC Traction and Hydraulic Motors	Std
Flush-faced mast channels	Std
Three degree angle canted load rollers	Std
Hard chrome plated hydraulic cylinder rods	Std
Self adjusting brakes with improved life due to Auto Deceleration System	Std
PC Interface	Std
500 hour service intervals	Std
Removable floor side plates	Std

Service options

	ERC-VA
Side battery removal	Opt
Full LED Light Package	Opt
Hydraulic System Monitoring	Opt
Impact Monitor	Opt
Attachment Extension Tubes (with/without Quick Disconnect Fittings)	Opt
Low Mount Display	Opt

Cost of Ownership highlights

	ERC-VA
Auto Deceleration & Regenerative Braking	Std
Electronic Systems Monitoring	Std
Extended Shift	Std
Brushless AC Traction and Hydraulic Motors	Std
Transistor Controlled Hydraulics	Std
Power Assisted Braking	Std
Advanced Thermal Management System	Std
Electronic Horn	Std

Cost of Ownership options

	ERC-VA
Accumulator	Opt
Full LED Light Package	Opt
Type "EE" UL construction	Opt
Impact Monitor	Opt
Load Weight Indicator	Opt
Hydraulic System Monitoring	Opt
Operator Daily Checklist	Opt
Operator Password Start Interlock	Opt

**Sales • Rentals • Financing • Fleet Management
Parts • Service • Operator Training**



Manufactured in our ISO 9001 and ISO 14001 Registered Facilities



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