

E45-70XN SERIES



**STRONG PARTNERS.
TOUGH TRUCKS.™**

COUNTERBALANCED ELECTRIC, CUSHION TIRE



E45-70XN SERIES

The E45-70XN series of lift trucks offers numerous advantages in quality and ergonomics that make them one of the most operator friendly AC-powered lift trucks on the market. This generation of electric lift trucks will lower overall operating costs and maximize productivity by combining exceptional operator comfort, quality and superior performance.

An intelligently designed operator module provides a comfortable and productive operator compartment that features a 20% increase in floor space and a relocated “heads-up” Multifunction Display for enhanced visibility and pallet control. A redesigned hood provides maximum battery service access to reduce downtime.

Superior comfort and customizable performance enable the E45-70XN lift trucks to be among the most productive in the industry, by matching operator skill with individual performance needs. The PowerPlus Performance option is the most productive configuration for fast and efficient load handling.

The E45-70XN series delivers more bottom-line savings by increasing productivity and uptime while reducing downtime and maintenance. By utilizing AC motors and transistor controller technology for all traction and hydraulic systems, the Hyster® E45-70XN reduces the frequency and cost of maintenance.

Using cutting-edge components and intelligent system designs keeps the E45-70XN operational longer with minimal downtime, which means you have a lift truck you can depend on. The E45-70XN series is assembled on a state-of-the-art assembly line utilizing the latest in manufacturing processes and techniques.





■ ADVANCED DEPENDABILITY

- Welded steel frame construction
- Advanced Thermal Management System
- Industrial-strength electronics
- Hassle-free hydraulics

■ LOW COST OF OPERATIONS

- Brushless AC technology
- Vehicle system manager
- On-board diagnostics
- Low energy consumption

■ LOW MAINTENANCE, HIGH UPTIME

- Lift-out floor plates
- Removable side plates
- Hall-Effect sensors
- Easy battery access

■ OPERATOR-FRIENDLY COMFORT

- Large floor space
- Operator convenience station
- Multiple seat options and adjustable features
- Optional TouchPoint mini-levers

■ MOVE MORE LOADS PER HOUR

- Seatside directional control
- MONOTROL® pedal
- Customizable performance modes
- Extended shift feature

ADVANCED DEPENDABILITY

THERE'S NO QUIT IN A HYSTER® LIFT TRUCK.

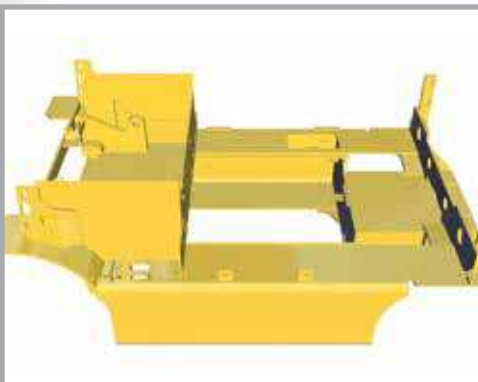
Hyster Company has an 80-year history of engineering and manufacturing some of the most reliable and productive lift trucks on the market. The Hyster® E45-70XN series continues that legacy with a lift truck that was designed and built to be the most dependable in the marketplace.

■ WORLD-CLASS DEPENDABILITY

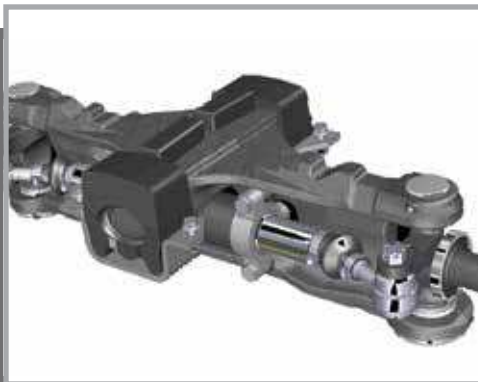
- Hyster® brakes are self-adjusting and self-energizing with heavy duty backing plates to provide optimal performance and lengthened service life.
- Auto deceleration system extends brake life by automatically slowing the truck through regenerative braking when the accelerator pedal is released.
- The power-assist braking feature improves brake life while reducing operator effort.
- Easy-to-use onboard diagnostics through the Multifunction Display provide fast and accurate troubleshooting for first-time fixes.
- Optional electronic monitoring package reports low fluid level and hydraulic oil filter restrictions.
- The Hyster durable cast ductile iron steer axle provides the smoothest ride for component and battery protection. Its transverse, double-acting hydraulic cylinder, tapered roller spindle-support bearings and non-adjustable tie rods provide maximum durability while providing superior steering control and load handling.
- Optional LED work lights, brake lights, and taillights resist vibration and rarely need replacement.
- Unitized frame construction provides excellent durability and stability, boosting driver confidence and enhancing productivity.

■ THERMAL MANAGEMENT SYSTEM

- Large Air Inlet Ports in the rear of the truck are protected and strategically positioned to provide fresh air intake for controller cooling.
- A heat sink is used to draw heat away from the motor controllers, and cooling fans are positioned on top of the heat sink.
- The Hyster-designed thermal management system continuously monitors critical truck functions. Upon identifying an irregularity, it protects the componentry by automatically adjusting truck performance.



Rugged unitized frame



Durable steer axle



Large air inlet ports

■ INDUSTRIAL STRENGTH ELECTRONICS

- CANbus communications network reduces wiring complexity, providing superior dependability.
- Non-mechanical, Hall-Effect sensors and switches are designed to last the life of the truck.
- Proven tough, Pacesetter Vehicle System Manager (VSM) industrial onboard computer manages truck operation to maintain world-class dependability to maximize uptime.
- Double-sealed electrical connectors provide a dustproof and waterproof connection to help prevent contamination-related failures.
- Smart, one-way routing path for wire harnesses ensures consistent high-quality assembly while increasing durability and simplifying maintenance when needed.

■ HASSLE-FREE HYDRAULICS

- Leak-free O-ring face seal fittings reduce leaks for enhanced reliability.
- A 10-micron high performance in-tank filtration system captures 99.5% of hydraulic system debris, significantly extending component life.
- Smart placement of the control valve and hydraulic lines away from heat sources reduces operating temperature, extending the life of seals and hoses for exceptional reliability.



Our patented Hyster Stability System (HSS®) is built into the fundamental design of every truck—it's not "added on" like other manufacturers—to allow for articulation on uneven surfaces and to minimize truck lean for enhanced lateral stability. And unlike some competitors, the Hyster HSS® is virtually maintenance-free.



LOWER COST OF OPERATIONS

LITTLE TO OWN. LOTS TO APPRECIATE.

The Hyster® E45-70XN series lowers your cost of operations by delivering enhanced productivity, lower energy consumption, advanced dependability, and reduced maintenance costs. The standard AC traction and hydraulic motors set the standard in materials handling, significantly reducing maintenance requirements.

■ BRUSHLESS AC TECHNOLOGY

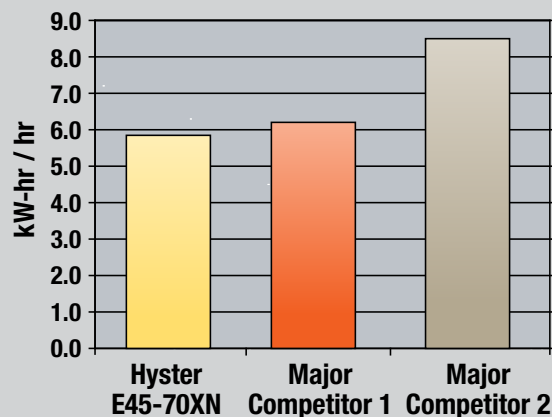
- Eliminates the motor brushes.
- Eliminates scheduled downtime and the cost for parts and service.
- Requires no periodic maintenance for brushless AC traction and hydraulic motor.
- Eliminates the service requirements created by brush wear dust.
- Does away with the commutator and its related parts and service costs.

■ VEHICLE SYSTEM MANAGER

All vehicle systems are managed electronically to optimize performance, significantly increase overall reliability and enhance diagnostic capabilities for maximum uptime. The Pacesetter Vehicle System Manager (VSM) enables customization of truck performance to suit application needs.

- Communicates with motor controllers and operator display via CANbus
- Monitors truck functions and stores data
- Provides advanced thermal management and truck diagnostics
- Interfaces Service and Diagnostic Tools
- Interfaces all operator control devices
- Interfaces all on-board sensors

LOWEST ENERGY CONSUMPTION



According to the VDI Energy Cycle Standardized Test, the E45-70XN series provides the lowest energy consumption; it's also 10% more energy efficient than our previous model. Better energy utilization saves money and reduces impact on the environment.

■ UNRESTRICTED SERVICE ACCESS

- Two-piece floor plate and side plates can be easily removed for access to:
 - Brake fluid reservoir
 - Hydraulic filter
 - Hydraulic valve
 - VSM
 - Tilt cylinders
- Lift-out floor plates require no tools for quick and easy daily operator checks.
- Removable side plates provide additional access to all major truck components.



Unrestricted service access

■ SUPERIOR SERVICEABILITY

- The E45-70XN series utilizes CANbus communications to simplify wiring and improve serviceability.
- State-of-the-art onboard diagnostics reduce repair time and minimize expensive part-swapping.
- Direct access for service is a key element for easier daily maintenance or service. The result is reduced downtime for continued productivity.
- Easy battery access is provided via the gas spring-assisted hood and quick release handle.



Easy battery access

■ SUPPORTING CUSTOMERS WITH WORLD-CLASS PARTS & SERVICE

Four Parts Distribution Centers strategically located around the world provide a full range of original equipment and aftermarket parts that help maintain our customers' uptime. G.A.P., our Guaranteed Availability Program, guarantees that if a covered part is not available the next business day it will be provided to you FREE of charge.*

We also take that commitment into the field with the Hyster CERTech® Certification training program. This technical training program provides both systems level as well as product-specific education to ensure lift trucks are repaired right the first time.



**Contact your local dealer for program details.*

SUPERIOR ERGONOMICS

SUPERIOR COMFORT COMES STANDARD.

The superior ergonomic design of the E45-70XN means greater comfort for your operator. Enhanced ergonomics combined with customizable performance characteristics enhance overall productivity and uptime.

■ SUPERIOR OPERATOR COMPARTMENT

- Choice of two configurations that employ seatside mechanical levers or TouchPoint mini-levers to provide you unsurpassed, low effort, tactile control of all hydraulic functions.
- 20% increase in floor space – uncluttered floor area promotes operator comfort.
- Optional DC converter provides an automotive style 12-volt outlet in the operator convenience station and an auxiliary power tap under the floorplate for customer mounted accessories.
- Easy-to-use 3-point entry design of operator compartment uses a large molded hand grip, hip restraint and open non-slip step with a low step height to minimize muscle and joint strain during entry/exit.
- Forward placement and angle of pedals provide more operator foot room.
- Electronic floor-mounted accelerator pedal.
- Placement and size of brake pedal allows actuation with either foot.
- Thickest floormat in the industry provides greater operator comfort.
- Seat is rotated 3° to the right for a more natural operating position, and offers easy fore/aft adjustment. An optional full-suspension seat offers adjustable weight control.



3-point entry design



12-volt automotive style outlet

Operator convenience station



Increased floor space

■ LOW-EFFORT OPERATION

- The optional automatic park brake automatically applies the park brake when the truck is stationary and releases the park brake when the accelerator pedal is depressed, increasing productivity and reducing operator effort.
- Improved brake pedal layout and the minimal braking requirements of the Auto Deceleration System significantly reduce operator fatigue.
- Rear drive handle (optional) provides an excellent hand hold for reverse driving while giving ready access to the auxiliary horn button for use when approaching cross-aisles and pedestrian traffic areas.
- An infinitely adjustable steer column and optional full-suspension seat assures the right fit for any operator.
- A choice of 6 different seats enables a more customizable level of operator comfort through the enhanced design and adjustable features.
- Increased shoulder clearance – a result of the redesigned overhead guard and 20% more floor space – gives operators greater foot room.
- The standard 12-inch steering wheel with integrated spinner knob reduces fatigue while providing more knee room and goes lock-to-lock in just 4 turns for superior efficiency, maneuverability and control.
- Optional key switch controlled lights turn work and taillights on and off with the key switch, and turn rear work lights on automatically when the truck travels in reverse, eliminating the need for the operator to control them manually.

■ HYDRAULIC CONTROLS

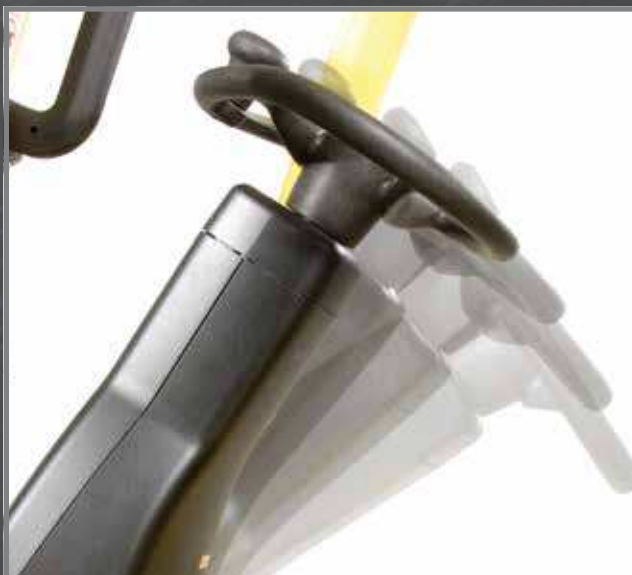
- Choose TouchPoint mini-lever electro-hydraulic controls with a built-in armrest, or alternative seatside mechanical levers.
- Optional TouchPoint mini-levers provide precise fingertip control of all hydraulic functions. An adjustable armrest with palm rest, mounted on the operator seat, positions the mini-levers in the most comfortable and efficient position.
- The armrest is cushioned and contoured to provide full forearm support. The hydraulic functions, seatside directional control switch, horn and emergency disconnect button are all incorporated in the armrest and designed to maximize operator comfort and ease of use.



Comfortable seat



Adjustable armrest



Infinitely adjustable tilt steer column

ENHANCED PRODUCTIVITY

MAKE THE MOST OF YOUR WORK DAY.

Increase throughput and sales volume while reducing operating costs. Productivity means moving more of your loads in less time with less cost. The Hyster® E45-70XN series has been proven to be a leader in productivity.

■ SUPERIOR OPERATOR CONTROL

- Mast provides fast lift and lower speeds combined with superb visibility.
- The optional Hyster-designed integral sideshift and integral sideshifting fork positioner provide excellent visibility and afford greater capacities than carriage mounted sideshifts.
- Choose from two configurations that employ seatside mechanical levers or TouchPoint mini-levers to provide unsurpassed, low effort, tactile control of all hydraulic functions.
- Choose from the Hyster® exclusive MONOTROL® pedal or the ergonomically placed thumb actuated seatside directional control (at no extra charge) for quicker, smoother control of travel speed and direction, improving operator efficiency and bolstering productivity.
- Infinitely adjustable tilt steer column provides increased comfort while minimizing fatigue.
- On-demand hydrostatic steering provides low effort steering and superior control with reduced noise.
- Power-assist braking improves brake life while reducing operator effort.



MONOTROL® pedal



TouchPoint mini-levers with seatside direction control



Seatside mechanical levers

■ PERFORMANCE MODES

- Adjustment of customizable performance parameters to match your application needs is accessible via the “heads-up” Multifunction Display by a qualified technician.
- A significant increase in loaded travel speeds and acceleration rates beyond the standard setting is possible when the Extended Shift setting is turned off.
- Our standard Extended Shift AC controller setting provides the optimum balance between performance needs and battery shift life.

■ MULTIFUNCTION DISPLAY

- Offers greater visibility for the operator.
- Large, LCD backlit screen for easy viewing.
- 4 operator selectable performance modes (standard).
- Service password access for set-up and diagnostics.
- Displays truck status and warning indicators.



High-visibility Multifunction Display

■ AC TECHNOLOGY

- Delivers quick and smooth changes in travel direction, offers precise speed control with excellent acceleration which significantly increases productivity.
- The standard Extended Shift feature allows enhanced run time without recharging over longer periods.
- Maintains top speed regardless of load or battery discharge level with enhanced performance on ramps when Extended Shift is off.
- AC transistor hydraulic control enables precise load handling with greater efficiency and less noise.
- Hyster-designed thermal management system maximizes performance during continuous operation, while preventing damage to components due to heat.
- The optional PowerPlus Performance Package (48v / 80v) provides up to a 12% improvement in traction performance and 10% increase in hydraulic performance over the standard configuration.

■ OPERATOR CONVENIENCE STATION

- Industry-leading dash storage area provides the operator a productive work environment.
- Dedicated storage areas for markers, cell phone, PDA or 2-way radios, gloves, clipboards, pick tickets, beverages, flashlight, box-cutter—a place for almost anything an operator needs.



Versatile operator convenience station

APPLICATION-MATCHED PERFORMANCE

■ HANDLES THE HEAVIEST LOADS WITH EASE.

Hyster® E45-70XN series trucks are built for superior stability, so operators can trust them with tall loads, long loads and all loads in-between. Our patented Hyster Stability System (HSS®) is built into the fundamental design of every truck to allow for operation on uneven surfaces and to minimize truck lean for enhanced lateral stability.

- HSS® is a 100% maintenance-free design.
- Its passive mechanical system uses gravity to optimize steer-axle geometry.
- Top accessible, “J-hook” mast mounting system allows convenient and easy mast service.
- Mast channels built with one-piece, high-strength rolled steel.
- Load rollers are canted at 3 degrees to resist forward/backward movement.

■ CUSTOMIZED PERFORMANCE FOR ANY APPLICATION.

No two working environments are exactly alike. That's why Hyster Company gives you the option of tailoring your lift truck's performance and features to your application. Customize speed settings and directional control methods. Take advantage of Extended Shift functionality to maximize productivity. No matter what truck configuration you choose, your Hyster® lift truck will work as long and as hard as you do.



■ ZERO EMISSIONS. HIGH THROUGHPUT.

Any electric truck can give you a more fuel-efficient alternative to IC. Few can give you a dependable, high performance, fuel-efficient alternative. The E45-70XN series offers an accelerated return on your investment because it's built to last. Less maintenance. Less vibration, noise and heat. Low energy consumption. More uptime. All while offering zero emissions.

In the E45-70XN lift truck series, energy is recaptured during braking and then reused to reduce overall consumption. Non-productive energy is reduced through weight reduction, drive-train efficiency and hydraulic system efficiency. The standard Extended Shift setting provides the optimum balance to extend battery shift life without sacrificing your performance needs.

■ SUPERIOR TRUCKS. SUPERIOR OPTIONS.

- Application/environmental construction
 - Standard construction: operating temperatures: +32°F to +120°F
 - Cooler/freezer package option: operating temperatures: -20°F to +120°F
- Return to set tilt option brings the forks 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, 48 or 80-volt systems provide excellent performance.
- 80-volt electrical system option for maximum performance in long-haul applications.
- Extended Shift can be disabled for increased productivity levels.



INNOVATIVE TRUCKS ENGINEERED TO MEET THE MOST DEMANDING APPLICATIONS

For more than 80 years, Hyster has been conquering the world's most demanding applications. In the 1920's Hyster started as a manufacturer of lifting machines used in the rigorous logging industry of the United States' Pacific Northwest. A few years later the first forklift trucks were invented and the Hyster brand quickly gained its reputation for rugged quality. Hyster® lift trucks are designed to lower your cost of operations. Every truck we make — gasoline, LPG, diesel and electric — is purpose-built to excel in its application. Every truck is also backed by an unmatched network of specialists.



Dealer Network — Our Dealer Network can offer the expertise of fleet managers, parts suppliers, capital procurement specialists and trainers. Hyster's carefully chosen dealers fully understand customer applications, assist in selecting the right lift truck and provide fast, reliable support.



Hyster Fleet Services — Even if you operate other brands, we can manage your maintenance and replacement plan. We can offer complete fleet analysis, fleet history summary and a cost-effective proposal for replacement and scheduled maintenance.



Parts — With genuine Hyster replacement parts and UNISOURCE™ parts for all makes of lift trucks, we are your one-stop source for lift truck parts. In fact, we offer more than 2 million part number crosses for most brands of materials handling and other in-plant mobile equipment.



Rental Products — When leasing or buying isn't a practical option, we have access to more than 14,000 units for short- and long-term rental. We'll help you maintain output in a cost-effective manner.



Hyster Capital — We can arrange solutions for special financing requirements, taking the difficulties out of buying the equipment you need. Whether you purchase or lease a new or used lift truck, Hyster Capital offers superior service and competitive rates.



Special Products Engineering Department (SPED) — Different materials require different handling. That's why we can work with you to customize your lift trucks. From strobe lights to specially made forks, SPED has the tools to help you get the job done right.



Operator Training — Proper education in operating lift trucks minimizes the risk of injuries due to accidents while increasing productivity. Hyster offers OSHA-compliant materials that support the training of qualified operators.



Service — Your local Hyster® dealer offers a flexible, customized and comprehensive maintenance plan based on each lift truck's operation environment. Hyster service programs offer scheduled inspections and maintenance, along with quick, responsive service dispatched to your location.





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Visit us online at www.hyster.com or call us at 1-800-HYSTER-1.

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