

H360-36/48HD SERIES



**STRONG PARTNERS.
TOUGH TRUCKS.™**

HEAVY DUTY LIFT TRUCK



H360-36/48HD SERIES

TOUGH TRUCKS FOR HEAVY DUTY APPLICATIONS

The innovative Hyster® H360-36/48HD series is engineered to meet demanding applications. It features durable components built around an efficient powertrain, a heavy duty front end, and maximum visibility. The Hyster® H360-36/48HD series offers a Tier 4 Final powertrain featuring the Cummins QSB 6.7L engine with cooled Exhaust Gas Recirculation (EGR) and Selective Catalytic Reduction (SCR). A Tier 3 Cummins QSB 6.7L engine is now available as an option.* The truck is engineered for easy service while offering up to 20% lower fuel consumption** than other leading competitive products.

Two models are available: the H360-36HD with 36,000 lbs. of lifting capacity at 36-inch load center and the H360-48HD with 36,000 lbs. of lifting capacity at 48-inch load center. Both trucks are engineered to provide up to 40,000 lbs. of lifting capacity at shorter load centers. These trucks have been developed, thoroughly tested and refined to provide outstanding performance in pipe handling, general cargo, breakbulk, lumber, steel, concrete and other heavy duty industries and applications.

* Tier 3 engine available for Canadian and Latin American markets only.
Contact Hyster Company for details.

** Results will vary based on application, physical environment, fuel quality, etc.





■ **DEPENDABILITY**

- Heavy duty masts & carriages
- Fork options
- Powertrain features ZF transmission
- Heavy duty steer & drive axles
- High capacity cooling system

■ **LOW COST OF OWNERSHIP**

- Harmonized systems design
- Lower fuel consumption
- On-demand hydraulics & cooling
- Auto-throttle up & empty seat engine shutdown
- Traction speed limiter

■ **SERVICEABILITY**

- Quick access points to key components
- On-board diagnostics
- Longer service intervals
- Parts support

■ **ERGONOMICS**

- Cab comfort & visibility
- Designed for comfort
- Low noise
- Ease of ingress / egress

■ **PRODUCTIVITY**

- Rated capacities & lift speeds
- Hyster Tracker compatible
- Maneuverability & turning radius

DEPENDABILITY

ENGINEERED FOR TOUGH APPLICATIONS USING PROVEN COMPONENTS

■ HEAVY DUTY MASTS & CARRIAGES

The Hyster® H360-36/48HD series is exceptionally suited for tough applications involving steel handling, precast concrete, lumber and building products. The truck has been engineered for long load centers, wide loads and heavy duty-cycle conditions typical in these applications. Carriage sideshift fork positioners utilize wear pads instead of rollers to eliminate point loading. Wear pads result in lower maintenance costs and long life, whereas rollers can result in unplanned failure of the bearings.



Heavy duty mast channels and front end

Oversized mast channels, rollers, stub shafts and chain anchors cater to heavy duty applications (similar to the Hyster® 45,000 lb. truck). A special purpose-built mast design for this truck series has been developed from the ground up featuring less mast deflection than comparable products with overhead tilt.

Greaseable load rollers with tapered roller bearings ensure the front end provides years of dependable performance with a similar design to the heavy duty H400-450HD series.

Carriages are designed to have minimum capacity derate on sideshifting carriages.



■ CARRIAGE & FORK OPTIONS

- Standard pin type with manual fork positioning
- Pin type with individual hydraulic fork positioning
- Apron-style sideshift
- Apron-style sideshift with individual hydraulic fork positioning
- Dual function sideshift fork positioner with integrated forks
- Dual function sideshift fork positioner with Quick Disconnect (QD) forks



■ POWERTRAIN

- Capable Cummins QSB 6.7L engine.
- ZF WG 161 3-speed powershift transmission with proven field experience and reliability provides smooth inching and fast acceleration.
- The Tier 4 Final well-integrated drivetrain includes an emission reduction package featuring cooled Exhaust Gas Recirculation (EGR), a Selective Catalytic Reduction (SCR) system for NOx reduction, a Diesel Oxidation Catalyst (DOC) for particulate matter (PM) removal and a Diesel Exhaust Fluid (DEF) delivery system.
- Tier 3 engines are available as an option for non-regulated markets, featuring Cummins QSB 6.7L engine and ZF WG 161 3-speed powershift transmission for both models.
- Powertrain derate helps to prevent damage to engine & transmission while enhancing component life, reducing engine performance if temperatures or pressures are outside design specifications.
- Torque derate strategy is implemented for engine and drivetrain protection.
- Derate conditions activated on:
 - High coolant temperature
 - High transmission oil temperature
 - High air intake temperature
 - Low oil pressure



Standard profile Deutsch pin connectors, IP64 compliant

■ HEAVY DUTY STEER AXLE

The steer axle is designed for longer life, providing an adjustable outside turning radius which reduces stress on the axles and improves tire life by mitigating tire scrubbing. Oil bathed wheel bearings ensure that bearings are constantly lubricated for long life and dependability.



Heavy duty steer axle

■ HEAVY DUTY KESSLER D81 DRIVE AXLE

Hyster has collaborated with Kessler to provide a heavy duty drive axle with wet disc brakes to provide long life. The robust design enables longer service intervals on fluid change.



Kessler D81 drive axle

■ HIGH CAPACITY COOLING SYSTEM

- High capacity cooling system is designed for high temperature ambient conditions up to 113° F (45° C).
- Components, hoses and fluids last longer with cooler fluid temperatures.
- Pusher fan drawing cool and clean air enables the cooling system to operate more effectively.

On-demand hydraulics reduces heat load into the truck by pumping oil only when needed. The drivetrain runs cooler, thereby further extending the hydraulic oil and component life.



On-demand hydraulic system

LOW COST OF OWNERSHIP

MORE VALUE, LESS COST

Hyster understands that your total cost of ownership extends beyond the initial acquisition costs. Hyster has collaborated with leading quality suppliers to provide well-integrated systems that help reduce your overall cost of operations over the useful life of the truck.



Tier 4 Final after-treatment package



Cummins enabled powertrain



On-demand cooling reduces fuel usage

■ HARMONIZED SYSTEMS DESIGN

Collaboration with Cummins enables a well-integrated powertrain featuring a Cummins QSB 6.7L engine paired with the ZF WG 161 transmission.

- Powertrain solution is optimized for maximum performance and excellent fuel consumption
- Results in lower fuel consumption
- Low-hassle Tier 4 Final solution requires no use of a Diesel Particulate Filter (DPF) or active regeneration; utilizes urea-based SCR system with a diluter for lower exhaust temperatures. A Tier 3 solution is also now available in all non-regulated markets.
- Innovative ECO modes – Hi-P and e-Lo
 - i. Hi-P provides maximum performance and good fuel economy
 - ii. e-Lo provides minimum fuel consumption without losing productivity

■ OPTIONAL LED LIGHTS

Hyster offers optional light packages featuring light-emitting diode (LED) technology available in mast, front fender and cab-mounted configurations. LED lights offer heightened brightness and luminosity with substantially longer life.

■ ON-DEMAND COOLING (TIER 4 ONLY)

This innovative feature provides on-demand cooling to match the required cooling expectations. A proportional viscous cooling fan draws power only when cooling is required between 10% and 100% of the engine speed, unlike direct drive fans which draw high levels of power at all times. This feature reduces accessory loads on the powertrain, consumes less fuel and lowers noise levels.

■ LOWER FUEL CONSUMPTION

Fuel consumption is a key driver of the total cost of ownership for high capacity lift trucks. Hyster has collaborated with suppliers to engineer a truck with superior fuel consumption characteristics compared to similarly sized trucks offered by the competition. The engine design produces more power and torque using XPI high-pressure common rail fuel injection and variable geometry turbochargers. Advanced controls enable the Cummins QSB 6.7L to provide peak performance and operating efficiency while delivering great fuel economy and durability.



■ ON-DEMAND HYDRAULICS

The Hyster® load sensing hydraulic system is developed to deliver flow only when required. A variable displacement pump, capable of more oil displacement even at low pump speeds, means the engine runs at lower speeds, extending the life of components while operating quieter. The system consumes up to 10% less fuel than a typical fixed displacement hydraulic system while producing less heat. Oil and filters last longer; hoses, seals and components also wear less and last longer.

■ AUTOMATIC THROTTLE-UP

Automatic throttle-up is a novel feature on Hyster® H360-36/48HD trucks which provides automatic response to lift inputs from the operator when the lift lever is activated. A single-touch lever or joystick-controlled rev-up keeps the engine in the most efficient band delivering good fuel economy. Given the improved operator ergonomics, this feature enhances productivity. Automatic throttle-up feature applies only when the truck is in neutral.

■ EMPTY SEAT ENGINE SHUTDOWN (OPTIONAL)

This feature reduces fuel consumption by shutting down the truck when the operator is out of the seat for extended periods of time, thus limiting idle hours on the truck. Empty seat engine shutdown is programmable to activate within a 3-15 minute window after an operator leaves the seat.

■ TRACTION SPEED LIMITER (OPTIONAL)

This system reduces traction speeds and can be pre-set to suit varying customer applications:

- Unconditional traction speed limiter to set the maximum speed*.
- Loaded traction speed limiter – limits traction speeds to a set point when a specified load weight is sensed on the forks. Factory pre-set to 8 mph and activates at 10% rated load.

This feature helps drivers to operate the truck in an optimal manner with regard to site limitations. Traction speed limiter settings are adjustable by your Hyster® dealer.

* Less speed means lower fuel consumption



** Based on results of comparative testing conducted February 2013

SERVICEABILITY

ACCESS MAJOR COMPONENTS IN SECONDS

■ EASE OF SERVICE

Hyster® trucks have been designed with the service technician in mind. Gull wing hoods provide quick access to key components, and daily checks don't require tilting the cab. A tilting cab provides easy access to hydraulic components in seconds. Broad, slip-resistant running boards foster quick daily checks, while a large access bay enables easy radiator cleaning. A hydraulic sight gauge makes for at-a-glance fluid level checks.



Gull wing hoods provide quick access



Interior cabin filter ease of access



Hydraulic sight gauge for fluid level checks



Powered cab tilt enables easy access to major components

■ ON-BOARD DIAGNOSTICS

CANbus on-board diagnostics is designed in an automotive-style layout with fuses centrally located on the left hand side console. Easy access to the side console panel from the left hand side of the cab makes for easy servicing and troubleshooting. Error codes are provided in an LCD display for quick and effective identification of service items while enabling rapid implementation of remedies, reducing downtime and reducing the mean time to complete repairs.



Quick access for engine oil check

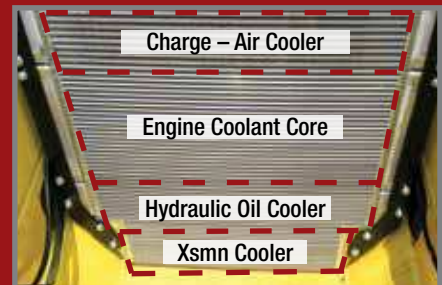
Courtesy of Crane.Market

■ LONGER SERVICE INTERVALS

Major engine and drivetrain components are engineered to operate on 500-hour service intervals. Extended hydraulic oil change intervals ensure that the truck remains in operation with longer mean times between oil changes or servicing.

■ COOLING SYSTEM

- Designed for heavy duty applications requiring additional cooling capacity.
- Cooling cores are packaged such that cool air is channeled across cores and not pre-heated air.
- Quad-cooler radiator features four separate cooler cores.
- Cool clean air is drawn in from above for more efficient cooling than in stacked radiator configurations.
- Louvered cooling fins for maximum air flow to radiator.
- Hinged hood pivots at wide angles to provide easy access to cooling system.
- Easy to clean since coolers are not stacked in front of each other.



Quad-core configuration enables efficient cooling



Hinged hood enables easy access to radiator cooler

■ 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. In fact, our Guaranteed Availability Program ensures that parts that are normally required in the first 2 years of operation will be available from your Hyster® parts dealer within 24 hours or they are free.*

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.



ERGONOMICS



■ DESIGNED FOR COMFORT

As in all Hyster® big trucks, operator controls are conveniently placed within a spacious cab for maximum comfort to increase operator productivity. Mini-levers or joysticks and switches are integrated into the armrest for smooth controlled actuation of mast and attachment functions. The armrest moves with the seat to maintain the driver's control when driving over uneven surfaces. The Hyster ComforCabll is widely recognized to offer among the best industry options for visibility and ergonomics, and the H360-36/48HD series is no exception.*

On the exterior, sloping counterweights enhance visibility of steer tires and curved front and rear windshields expand the open field of vision and help reduce tire gouging. Quiet operation is enhanced by lower engine speeds due to on-demand hydraulics and curved tempered glass properties. A fully adjustable steering column and seat comes standard for all H360-36/48HD trucks.

** Based on comparative competitive testing conducted February 2013.*





View of fork tips



Low profile carriage for clear line of vision



Rearward visibility

■ CAB COMFORT & VISIBILITY

A low profile carriage enables fork tip view. Forward visibility is enabled by the uncluttered positioning of hydraulic valves, hosing or mast cross-members with maximum view through the mast window. Canted hoses are arranged along the line of sight so the operator sees only one hose and has good visibility.

Rear and side visibility are not impeded by structural elements of the truck. There are no front posts in the corners, which enhances operator's visibility.

A curved tempered glass windshield provides a front end view. Likewise, a curved rear windshield provides rearward visibility over the operator's left and right shoulders.



Fully adjustable steering column

■ LOW NOISE – OPERATOR & ENVIRONMENT

With minimal noise at the operator's ear (73 dB(A) BITA) cabin interior noise ranks among the lowest in the industry, which enhances operator alertness and productivity.

■ PROPORTIONAL HYDRAULIC CONTROL

Proportional settings enable smooth controllability of truck functions with unique settings to suit drivers' preferences. The automatic throttle-up function is enabled with a single touch actuation.



Broad, slip-resistant running boards

PRODUCTIVITY

MORE LOADS MOVED PER HOUR

■ RATED CAPACITIES

Hyster® H360-36/48HD trucks offer full rated capacities at required load centers. Hyster has worked to ensure minimal derate compared to others in the industry.

- Full rated capacity at 36,000 lbs. with a pin carriage
- Full rated capacity at 36,000 lbs. with an apron sideshift carriage – no derate
- Minimal derate (1000 lbs.) for DFSSFP carriages

■ LIFT, LOWER & TRAVEL SPEEDS

Hyster® H360-36/48HD trucks deliver high productivity with 4-mode average speeds of 84 ft/min (0.43 m/s), very competitive in the industry at rated capacity.

Traveling Speeds:

- 17 mph (27 km/h) with load
- 18 mph (29 km/h) without load

Lifting Speeds:

- 77 ft/min (0.39 m/s) with load
- 87 ft/min (0.44 m/s) without load

Lowering Speeds:

- 106 ft / min (0.54 m/s) with load
- 89 ft / min (0.45 m/s) without load

■ AUTO-SHIFTING TRANSMISSION WITH TRUE INCHING

This truck series is equipped with ZF transmissions paired with Cummins engines to provide inching capability and better controllability. The auto-shift transmissions enable smooth shifts that enhance the longevity of the drivetrain and operator comfort by reducing jolt.



Automatic throttle-up features a one-touch lever that allows sufficient hydraulic flow during loaded lift conditions.

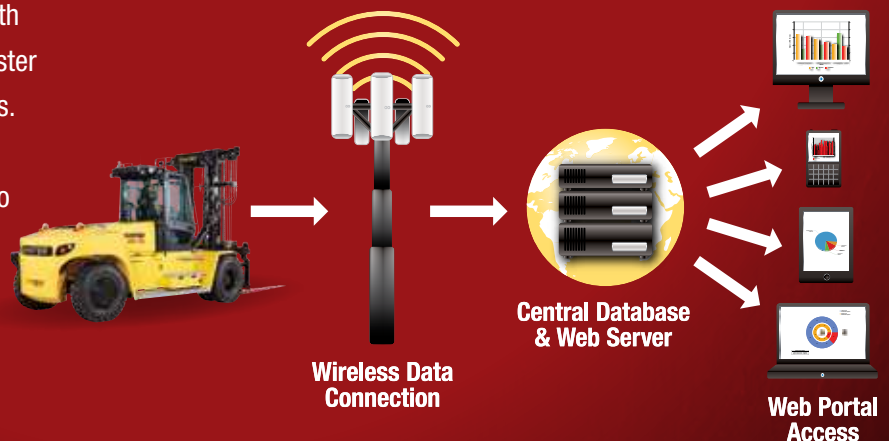


HYSTER TRACKER - WIRELESS ASSET MANAGEMENT

Take your fleet operation to the next level with wireless asset management from Hyster. Hyster Tracker provides a scalable solution for fleets. From monitoring truck utilization to limiting operator access, Hyster Tracker allows you to track your fleet at your fingertips.



TRACKER



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 fork lift 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.





Hyster Company
P.O. Box 7006
Greenville, North Carolina
27835-7006
Part No. H360-36/48HD/B
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Visit us online at www.hyster.com or call us at **1-800-HYSTER-1**.

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