



**STRONG PARTNERS.  
TOUGH TRUCKS.™**

# **H190-360HD2 SERIES**

**HEAVY DUTY FORKLIFT TRUCK**

**[WWW.HYSTER.COM](http://WWW.HYSTER.COM)**



## H190-360HD2 SERIES

The Hyster® H190-360HD2 series has been developed, tested extensively and refined to provide outstanding performance in lumber, concrete, steel, oil & gas, produce and other heavy duty industries and applications.

The Tier 4 Final powertrain features an emission reduction package that includes cooled exhaust gas recirculation (EGR), a selective catalytic reduction (SCR) system for nitrogen oxide (NOx) reduction, a diesel oxidation catalyst (DOC) and a diesel exhaust fluid (DEF) delivery system. These efficient features deliver up to 20% lower fuel consumption over older Tier 3 products.

Suited for applications where compactness and high maneuverability are vital, Hyster offers several models to choose from including eleven standard wheelbase trucks and three short wheelbase trucks with either 24" or 48" load center in the 19,000 through 36,000 capacity range.



## MAST AND FRONT END DESIGN

The 2-stage mast and carriage are designed for heavy duty applications. A wider inner mast channel and relocation of the chains to the outside of the mast provides excellent forward visibility through the mast.

Robust mast design for the 19,000 through 36,000 lbs. range incorporates decreased mast deflection and increased stiffness than comparable competitors' masts with overhead tilt.



The mast on the H190-360HD2 series incorporates a variable load roller lap design, which increases roller lap at the carrying height, resulting in reduced load roller forces. The overall lowered height is reduced while maintaining maximum lift height. Featuring maintenance free chain sheave bearings, the chains are located on the outside of the mast for increased forward visibility through the mast.

## HEAVY DUTY DRIVE AXLE

Hyster has incorporated robust and dependable drive axles in this series. The Kessler D61 drive axle is installed on the H190-280HD2 forklift models, and the Kessler D81 on H300-360HD2 and H210-250/48HD models. The Kessler D81 reduces truck width by 2" (51mm) to allow for easier truck transportation if needed. Both axles are specifically designed for heavy duty materials handling applications.

## CARRIAGE & FORK OPTIONS

The carriages are designed with a wide opening to increase forward visibility of the fork tips at ground level and most frequent loading heights. The top bar and side plates are manufactured from high strength steel. Greaseable load roller bearings help to remove wear particles from the roller body.

Full-rated capacity is provided with standard and apron style sideshift carriages. There is only a minimal de-rate on Dual Function Sideshift Fork Positioning (DFSSFP) carriages. Base carriages can be ordered.

Pin type forks have longer shanks to spread load forces. Quick disconnect hook type forks are available for the DFSSFP carriage. Industry specific attachments are available — pin type forks are designed specifically for the lumber industry, and a lumber stabilizer is also available.

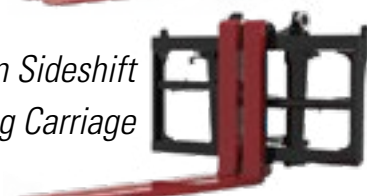
*Standard Pin Type Carriage with Mechanical Fork Locks*



*Standard Pin Type Carriage with Fork Positioning*



*Dual Function Sideshift Fork Positioning Carriage*



*Apron Style Sideshift Carriage*



*Apron Style Sideshift Carriage with Fork Positioning*



## SMALLER FOOTPRINT, GREATER CAPACITY

Ideal for compact operating conditions, Hyster® H300HD<sub>2</sub>S and H330HD<sub>2</sub>S models are available with all of the features of the standard wheelbase models including masts, carriages and fork options.

- 30,000 lbs. of lifting capacity available on the H300HD<sub>2</sub>S and 33,000 lbs. of lifting capacity available on the H330HD<sub>2</sub>S, both with outstanding turning radius (OTR).
- 114" short wheelbase offers compact size with excellent maneuverability.
- Shorter wheel base design does not compromise fuel tank capacity, hydraulic tank capacity, travel speeds or key performance characteristics.
- The fuel tanks have been engineered with 20% more volume for less frequent fill-ups.

*Forks shown below are designed for the lumber industry.*



## > LOW MAINTENANCE. HIGH PERFORMANCE.

The Hyster® H190-360HD2 series trucks are 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. Galvanized, broad, slip-resistant running boards foster quick daily checks, while a large access bay enables easy radiator cleaning.

### COOLING SYSTEM

- High capacity cooling system is designed for high temperature ambient conditions up to 113°F (45°C)
- Cooling cores are packaged such that cool overhead air is drawn in and channeled across cores
- Louvered cooling fins for maximum air flow to radiator
- Ample space in front of cooler cores enables effective maneuvering of service tools and equipment during service checks
- Easier to clean than stacked radiator configurations

### LONGER SERVICE INTERVALS

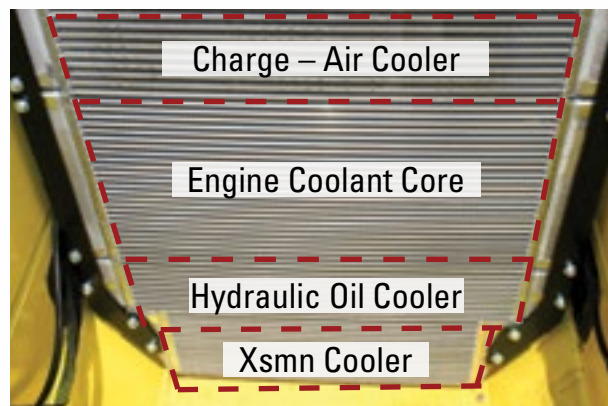
Major engine and drivetrain components are engineered to operate on 500-hour service intervals. Hydraulic oil changes can occur every 3,000 hours, and up to 10,000 hours with hydraulic fluid sampling, helping to keep the truck in operation with longer intervals between oil changes or servicing, thus helping decrease downtime and boosting machine productivity. A hydraulic sight gauge makes at-a-glance fluid level checks easier.

### AUTOMATIC GREASING SYSTEM

Optional automatic greasing system provides greasing of the mast tilt pins, frame tilt pins, steer axle spindles and tie-rods, and load rollers on the outer mast simplifying the routine truck maintenance.

### ON-BOARD DIAGNOSTICS

CANbus on-board diagnostics in an automotive-style layout with fuses centrally located on the side console provide easy servicing and troubleshooting. Error codes are provided on an LCD display for quick and effective identification of service items while enabling rapid implementation of remedies, reducing downtime and reducing the mean time for repairs.



*Quad-core configuration enables efficient cooling*



*The gull-wing hoods and tilting cab enables easy serviceability access to key componentry*

## CAB COMFORT

The operator compartment is mounted on elastomeric rubber mounts, minimizing effects of road-borne shocks and vibrations. Its spacious floor features a high-density rubber mat. A tilting, telescoping steering column and an adjustable full-suspension seat keep the operator comfortable.

The right-side armrest adjusts to position the truck's controls within easy reach. 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 of the truck even when driving over uneven surfaces. Low effort, load-sensing power steering is standard equipment.

Proportional truck function settings can be adjusted to suit operator preferences. The automatic throttle-up function is enabled with a single touch actuation.

With minimal noise at the operator's ear (72.8 dB(A) BITA), cabin interior noise in the optional enclosed cab ranks among the lowest in the industry, slightly less than the average sound level of music playing in your living room. Lower engine speeds due to on-demand hydraulics and curved, tempered glass surrounding the cabin results in quieter operation.



*The operator has a clear view of the fork tips when in the operator seat*

## FORWARD AND REARWARD VISIBILITY

Open carriage design, mast chains mounted on the outside of the mast, and increased space between mast channels and valve block location enable enhanced forward view of fork tips at travel and load height.

A curved, strong, tempered glass windshield provides an expansive front end view. Likewise, a curved rear windshield provides rearward visibility over the operator's left and right shoulders. On the exterior, sloping counterweights enhance visibility of steer tires for improved maneuverability and reduced tire gouging.

## > MORE VALUE FOR LOWER COST OF OWNERSHIP

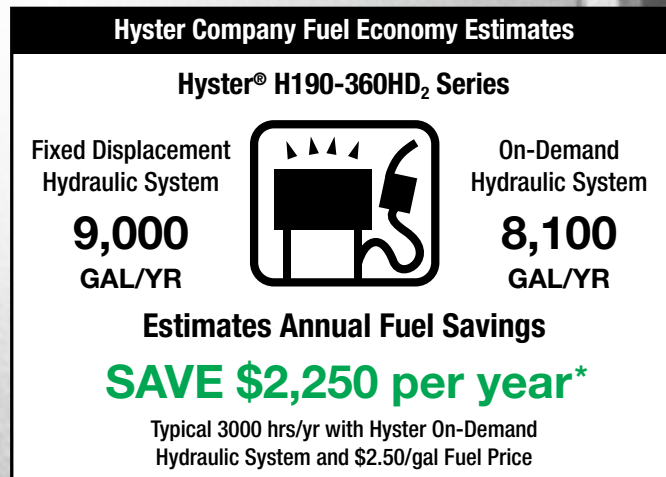
Hyster understands that your total cost of ownership extends beyond the initial acquisition costs. Hyster has collaborated with leading quality suppliers to provide well-integrated systems that help reduce your overall cost of operations over the useful life of the truck.

<b>INTEGRATED SYSTEMS DESIGN</b> Both the Tier 4 Cummins QSB 6.7L engine and the QSB 4.5L engine are paired with the ZF WG-161 transmission. (The Cummins QSB 6.7L engine is available as part of an optional Tier 3 package on all H190-360HD <sub>2</sub> series trucks.) Innovative ECO modes: Hi-P provides maximum performance and good fuel economy; ECO e-Lo provides minimum fuel consumption without losing productivity.	<b>ON-DEMAND COOLING</b> <ul style="list-style-type: none"> <li>• Features proportional viscous cooling fan which draws power only when cooling is required, unlike direct drive fans which draw high levels of power at all times.</li> <li>• Reduces accessory loads on the powertrain, consumes less fuel and lowers noise levels.</li> </ul>
<b>ON-DEMAND HYDRAULICS</b> The Hyster® load sensing hydraulic system delivers flow only when required. A variable displacement pump, capable of more oil displacement even at low pump speeds, means the engine can run at lower speeds. The system consumes up to 10% less fuel and produces less heat than a typical fixed displacement hydraulic system.	<b>AUTOMATIC THROTTLE-UP</b> Automatic throttle-up provides automatic response to lift inputs from the operator when the lift lever or joystick is activated while the truck is in neutral. A single-touch lever or joystick-controlled rev-up keeps the engine in the most efficient range, delivering good fuel economy.
<b>OPTIONAL EMPTY SEAT ENGINE SHUTDOWN</b> After an operator leaves the seat, the truck automatically shuts down. Factory preset to 15 minutes, the setting is easily adjustable within a 3-15 minute window by the customer.	<b>OPTIONAL TRACTION SPEED LIMITER</b> Unconditional traction speed limiter is factory pre-set to 10 mph to suit varying site limitations. Loaded traction speed limiter limits traction speeds when a specified load weight is sensed on the forks. Factory pre-set to 10 mph and activates at 10% rated load. Traction speed limiter settings are adjustable by your Hyster® dealer.

### LOWER FUEL CONSUMPTION

Fuel consumption is a key driver of the total cost of ownership for heavy duty lift trucks. Hyster high capacity lift trucks are engineered with an integrated powertrain system and on-demand hydraulics to deliver low fuel consumption with high levels of productivity.

The engine design produces more power and torque using XPI high-pressure, common-rail fuel injection and variable geometry turbochargers. Advanced controls enable the engine to provide peak performance and operating efficiency while delivering great fuel economy and durability.



\* Based on fuel consumption savings from Tier 4 Final product validation testing.



## > MORE LOADS MOVED PER HOUR

### LIFT, LOWERING & TRAVEL SPEEDS

#### Travel Speeds

- H190-280HD<sub>2</sub>: 19 mph (30 km/h) with or without load
- H300-360HD<sub>2</sub>: 16 mph (26 km/h) with or without load
- H210-250/48HD: 16 mph (26 km/h) with or without load

#### Lifting Speeds

- H190-210HD<sub>2</sub>: 89 ft/min (0.45 m/s) with or without load
- H230-280HD<sub>2</sub>: 79 ft/min (0.40 m/s) with or without load
- H300-360HD<sub>2</sub>: 81 ft/min (0.41 m/s) with load and 91 ft/min (0.46 m/s) without load
- H210-250/48HD: 81 ft/min (0.41 m/s) with load and 91 ft/min (0.46 m/s) without load

#### Lowering Speeds

All capacities: 98 ft/min (0.50 m/s) with load and 94 ft/min (0.48 m/s) without load

### AUTO-SHIFTING TRANSMISSION WITH TRUE INCHING

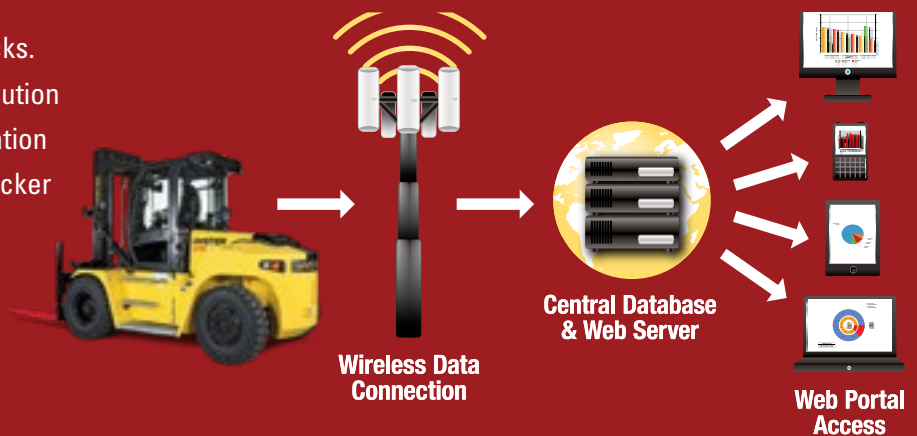
These trucks are equipped with proven and reliable ZF 3-speed auto-shift transmissions paired with Cummins engines to provide true inching capability and not declutch like some of the competitors' trucks. Equipped with an inching brake pedal that when depressed part way permits the truck to move forward and back in a slow controlled manner and allows high-speed hoist at low ground speed. The auto-shift transmissions enable smooth shifts that enhance the longevity of the drivetrain and operator comfort by reducing jolt, translating into better controllability and less operator fatigue.

## HYSTER TRACKER - WIRELESS ASSET MANAGEMENT

Take your fleet operation to the next level with wireless asset management from Hyster, standard on all Hyster Big Trucks. 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 nearly 90 years, Hyster has conquered the world's most demanding applications. In the 1920s 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 — whether powered by gasoline, LPG, diesel, lead acid, CNG, lithium-ion or hydrogen fuel cells — 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. 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 7 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](http://www.hyster.com) or call us at **1-800-HYSTER-1**.

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