



# HRS SERIES

## HOIST REACH STACKER SERIES



HRS-45-27 • HRS-45-31 • HRS-45-33 • HRS-45-35 • HRS-45-40 • HRS-45-40R

# OVERVIEW OF FEATURES

Oversized composite side thrust and main slide pads that are fully adjustable and easily accessible to shim and/or replace.

Robust chassis, boom, and attachment structure designed by Hoist Liftruck for 1,000,000+ cycles.

Bolted gland nut style ram with domestically sourced seals. In an effort to eliminate any possibility of oil on the walking surfaces, bleed lines are included above the main packing below the wiper to take any excess oil back to tank.

Inclination sensor and optical distance sensor used for locating precise position of container for safety interlocks. Angle and position sensors have no mechanical components for minimal maintenance and improved reliability.



12-volt standard electrical system. An outlet in the cab allows for a 12-volt supply to laptops, radios, scales, etc.



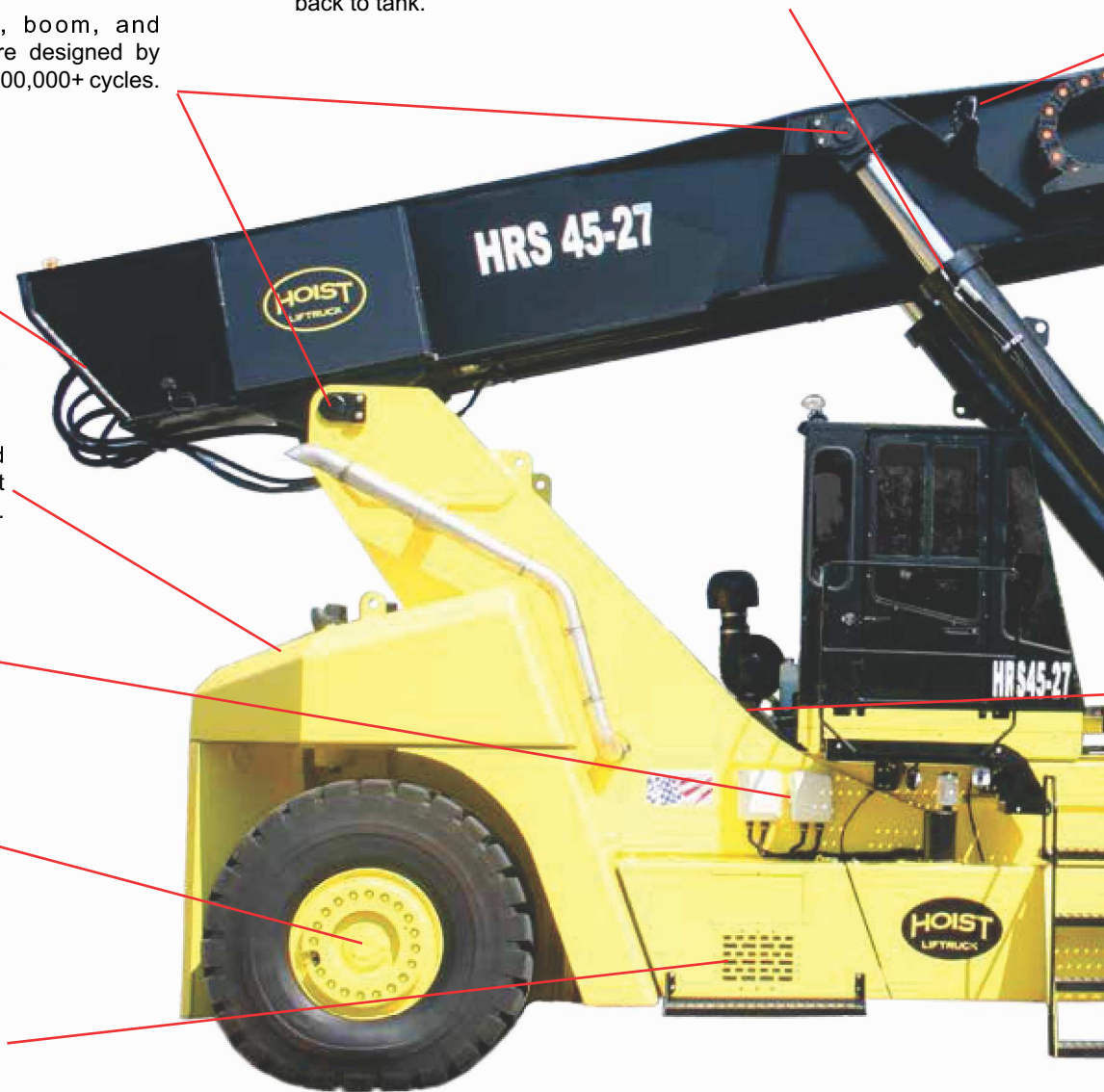
Separate battery cabinet with power disconnect. Separate filter cabinet provides one central location for easier preventative maintenance.

Angled counterweight for good visibility. Removable counterweight can be disassembled for easy freight.

Outboard weatherproof electrical enclosures for easy access and serviceability.

Proven heavy duty steer axle, using all off-the-shelf parts to ensure maximum up time.

Electrically operated hydraulic oil cooler provides cooling for brake circuit and all other hydraulic oil.



The HRS Series is designed to handle and transport ISO containers quickly and safely. Hoist offers a wide range of capacities, including models with front stabilizers specific to second rail operations.

10 service and step well lights to illuminate access points on the chassis and attachment for late night or early morning service/operation.

Optional attachment modules available to accommodate wide twistlock position (WTP) and pin-style containers as well as trailers.

Standard 'damage prevention system' uses ultrasonic sensors to decrease damage to containers and increase attachment lifetime.

All components on spreader are outboard and very accessible for ease of maintenance.

Shackle points to utilize reach stacker as a crane and give you ultimate flexibility for different applications. Such as wind, steel and barge loading.

Front removable covers and rear hinged hood on gas struts for easy access to the entire drive line.

Outboard wet disk brakes with force cooling to maximize life of brakes and drive axle.

Removable steps - allows them to be easily removed and repaired. Fenders and tanks are also removable and easily repaired without any welding.



Most ergonomic adjustable armrest with fully integrated hydraulic controls and operator interface. Able to conform to many different body types for unparalleled comfort while operating.

# OPERATOR COMFORT & CONTROLS



Dashless cab design provides completely unobstructed forward visibility, while the large cab area provides ample leg and elbow room.



MD3 display features gauge and warning functions, diagnostic capabilities and user interface for making vehicle adjustments.



Single joystick control provides smooth, precise control for maximum efficiency and safety.



Dual brake pedals - left for brake and declutch, and the right for brake only.



Adjustable luxury air ride seat with retractable seat belt for maximum comfort. Reduces vibration and operator fatigue.



Electronic weight scale optional, with or without printer.

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Isolated rubber mounts between cab and chassis, as well as an insulated cab provide a smooth ride and reduced noise levels.



Independently powered traversing cab moves operator forward/backward for optimal visibility and service access.



Rear window easily opens for emergency exit. Tinted glass, sliding side windows, push-open rear window and front/rear/overhead wipers provide optimum safety and visibility.



Electronic push-button parking brake control and easily accessible emergency shutdown switch.



Overhead and boom-mounted work lights improve safety and operator visibility.



Standard cab heater (air conditioning system is optional). Controls within easy reach of operator's seat.



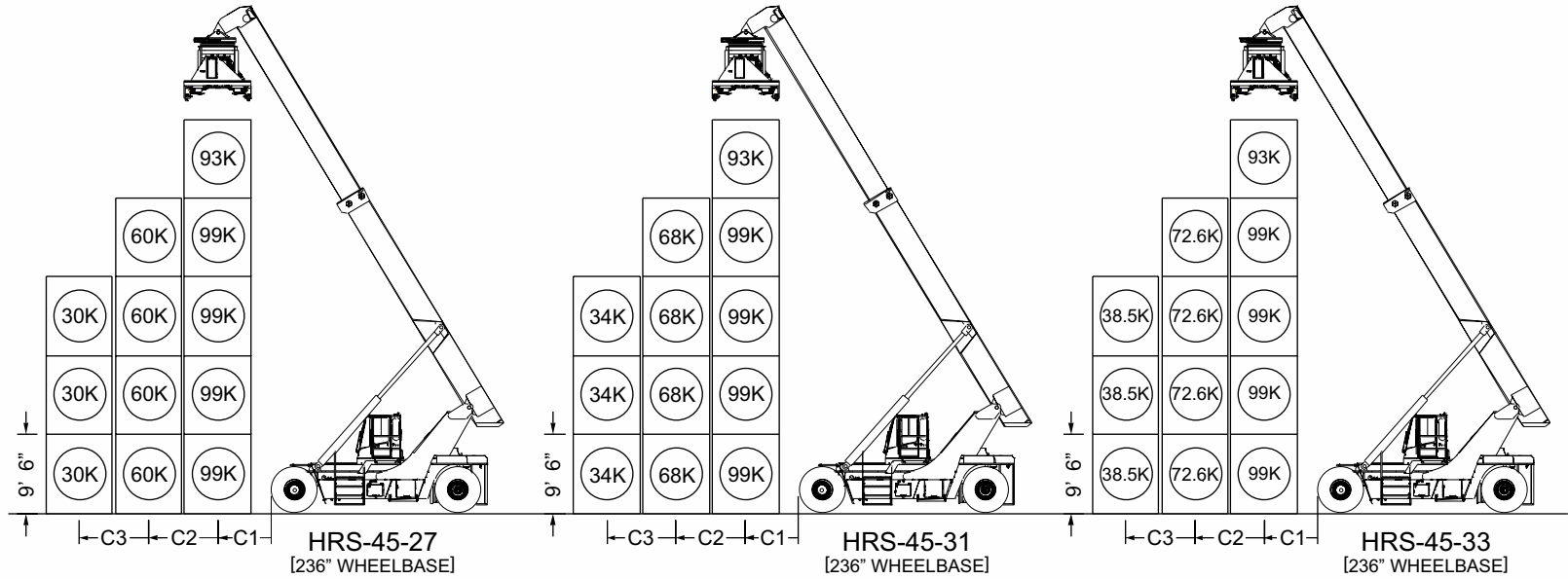
# OPERATOR VISIBILITY



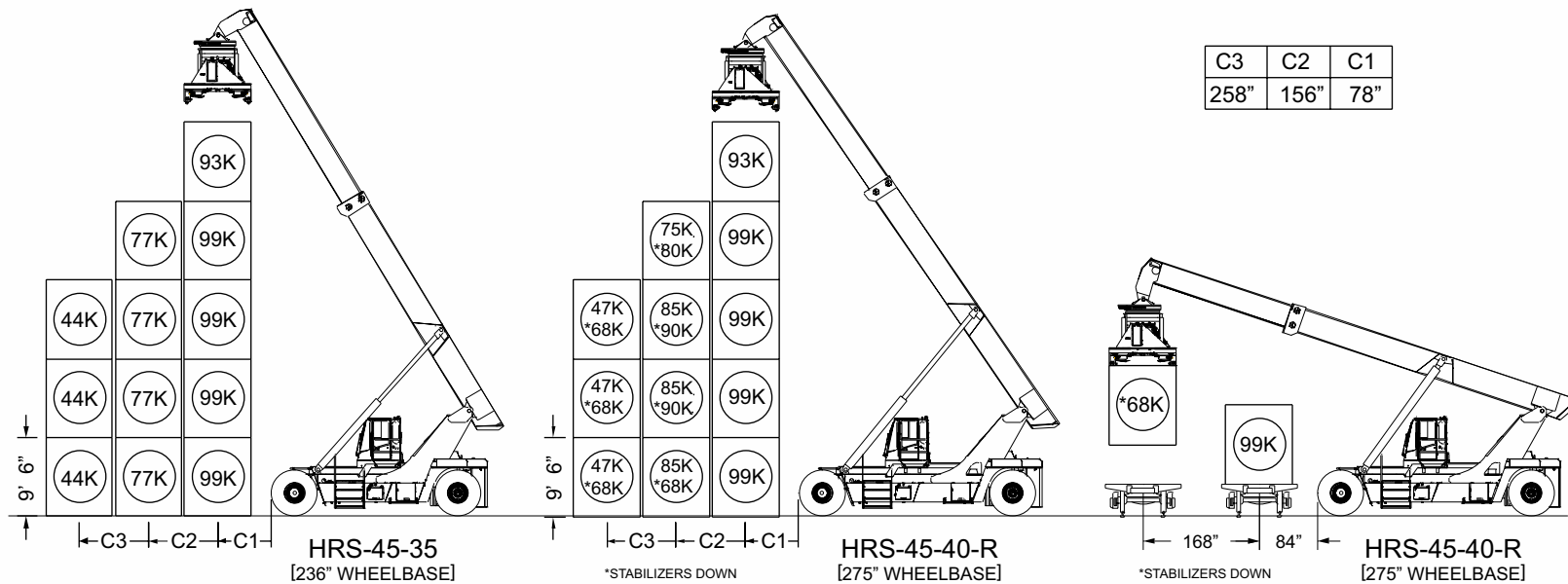
- Independently powered, traversing cab (above) can be moved forward or backward with a push of a button to enhance serviceability with access to major driveline components and hydraulics, as well as provide optimal visibility when stacking/unstacking containers.
- Excellent operator visibility at all load elevations (left and below). Operator has unobstructed upward visibility through top glass.



# HOIST REACH STACKER | HRS SERIES



CAPACITIES LISTED IN THOUSANDS (K) OF LBS.



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# BOOM & ATTACHMENT



- 4-point top pick loaded container attachment with automatic locking vertical twistlocks. Extend/retract to handle 8' ISO containers from 20' to 53' long.
- Optional wide-twistlock position/WTP (8'6"), pin-style and trailer attachment modules available
- Shackle points to utilize reach stacker as a crane and provide ultimate flexibility for different applications such as wind, steel and barge loading.
- Standard 'damage prevention system' uses ultrasonic sensors to decrease damage to containers and increase attachment life.
- Optional scale system with or without printer to measure load weight.
- Oversized composite side thrust and main slide pads are fully adjustable and easily accessible to shim and/or replace.



Automatic pendular floating twistlocks with override function; integral carriage with  $\pm 30^\circ$  side-shift.



Twistlock engagement indicator lights on boom, as well as inside operator's cab. Interlock safety system ensures proper locking sequence and includes an overload warning alert.



10 service and step well lights to illuminate vital points on chassis and attachment for late night or early morning service/operation.



Inclination sensor and optical distance sensor used for locating precise position of container for safety interlocks. Angle and position sensors have no mechanical components for minimal maintenance and improved reliability.



All components on spreader, including hydraulic valve and cylinders, are outboard and accessible for ease of maintenance.



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185 degree attachment rotation in one direction,  
95 degree rotation in opposite direction.



Extend/retract to handle 8'6" to 9'6" high ISO containers 20' to 53' long.



+/-30" of side shift and  
+/-5 degree mechanical  
pile slope (hydraulic pile  
slope optional).



+/- 5 degree  
hydraulic tilt.



# POWER & RELIABILITY



## ENGINE & TRANSMISSION

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- Tier-compliant turbocharged diesel engine, with hinge-mounted hood for easy access
- Charge air cooler with side-by-side integral radiator and transmission oil cooler for maximum heat dissipation, air flow and serviceability
- High-performance, 9-blade fan built to draw air through the cores more effectively, ensuring cooler operation with less dirt and debris accumulation
- Two-stage heavy duty air cleaner with electronic filter restriction indicator and high air intake, providing maximum efficiency
- 160-amp alternator with built-in regulator
- Built-in powertrain protection system to enhance engine and transmission longevity
- Electronic diagnostics on engine with fault code history, built for easy diagnostics and service
- Powershift transmission with three (3) forward and three (3) reverse speeds. Most common transmission for use in off-highway applications
- Electronic declutch system for increased hydraulic performance at higher RPMs
- 12-plate modulation, designed for smooth shifting and protection against directional change stock loads with constant mesh gears during shifting
- Dedicated transmission oil cooler



## HYDRAULIC SYSTEM

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- “On-demand” load sense steer pump increases vehicle efficiency by up to 27%, as compared to individual gear pumps
- High capacity return filter with electronic restriction indicator for maximum efficiency
- Internal force-cooled, oil-actuated wet disc service brakes.
- Large capacity 160 gallons (606 liters) bolt-on hydraulic tank designed with spin-on tank breather, dual wire-mesh strainers and additional cooling capabilities
- Electrically operated hydraulic cooler
- Cylinders feature: Bolted gland nut, off-the-shelf domestically sourced seals, and standard size rods and tubes. Bleed lines above the main packing and below the wiper take excess oil back to tank in an effort to eliminate any possibility of oil escaping the cylinder
- Load sense hydrostatic steering for decreased effort and reliable control
- “ORFS” face seal o-ring fittings utilized to eliminate leaks

# DRIVE/STEER AXLE & ELECTRICAL



## DRIVE & STEER AXLES

- Outboard planetary drive axle provides longevity; heavy-duty for improved stability
- Outboard wet disk brakes with force-cooling, designed for improved performance and longevity with little to no maintenance
- 18.00 - 25 tires provide long life and low operating costs
- Spring-applied/hydraulic-released parking brake with brake saver system prevents the operator from driving through the parking brake; doubles as emergency brake
- Heavy-duty welded beam steer axle, designed to protect the cylinder from damage
- Full lock-to-lock steering in 3-4 steering wheel revolutions minimizes operator fatigue
- Greaseable heavy trunnion mounts with replaceable bearings; steer links with large hardened pins and steel bearings



## ELECTRICAL

- Standard 12-volt electrical system
- All electrical wires are color-coded and harness is enclosed within a split-tubing wire loom wrap and utilizes sealed weather pack connectors
- Two 8D 12-volt industrial batteries mounted in easy access cabinet with hinged door and power disconnect switch
- Easily accessed automotive style fuses
- Weatherproof electrical enclosures
- CANbus control simplifies wiring and provides diagnostic capabilities
- 12-volt cab outlet(s)
- LED, halogen, and HID lights available

# STRENGTH & MODULARITY



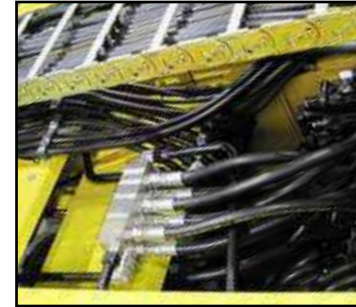
- Modular chassis designed with bolt-on sections, providing fast and cost-effective shipping, easy assembly and customization while protecting all vital systems and components
- Vehicle can be fully containerized to save customers as much as 50% in shipping costs versus RoRo or over-the-road
- Minimizes initial setup time of vehicle at customer's location
- Bolt-on assemblies allow for easy part replacement without compromising the structural integrity of the vehicle
- Anti-slip steps/handrails for 3-point mounting/dismounting
- Fully welded rigid steel frame provides the strength and durability for the most rugged applications
- 155-gallon (587 liters) capacity, heavy gauge steel wall fuel tank with lockable cap and integral strainer
- 160-gallon (606 liters) capacity hydraulic tank with steel walls, promoting system cooling
- Bolt-on tanks, designed for easy removal and cleaning
- "ORFS" face seal o-ring fittings built to control leaks
- Eight standard work lights + two additional step lights installed for optimal visibility
- Counterbalance valves mounted directly to the lift cylinders hold the load in place in the event of a hose failure



# SERVICEABILITY



Separate battery cabinet with power disconnect. Separate filter cabinet provides one central location to make for ease of preventative maintenance.



Front removable covers and rear hinged hood on gas struts provide easy access to the entire drive line.



Outboard weatherproof electrical enclosures for easy access and diagnostics.



Diagnostic multi-gauge eliminates the need to tap into hydraulic lines.



Attachment-mounted main hydraulic plumbing and external attachment spreader cylinders provide easy access.



Bolt-on tanks, counterweights, cab superstructure and stairways can be removed for additional access.

# REMOTE TECH

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Utilizing CANbus technology, RemoteTech is a vehicle management system that provides superior serviceability, preventative maintenance, vehicle monitoring, automated customer support and the ability to customize vehicle functions right from the operator display.

It also provides the ability to send an email to an authorized personnel list, detailing vital information (optional with monthly fee). Service technicians can also quickly identify issues through electronic diagnostics and view fault code history.

- Unlike similar systems that rely on third-party companies to program and operate the system, RemoteTech is programmed and operated solely by Hoist Liftruck. This provides the ability to customize and adjust parameters to accommodate customer preference without introducing additional or specialized components
- Decrease downtime/repair costs by identifying/resolving issues early
- Parameters such as vehicle/lifting speeds and electronic fingertip control functions can be adjusted on MD3 Display
- Detect issues such as clogged or failing filters, overheated engine, and vehicle overload and impact
- Great for fleet management – record and monitor engine hours, service intervals and operator usage. Key code security capability is also optional, limiting access to designated operators



# MADE IN THE USA



More than 75% of the material on the HRS Series is made in-house at Hoist Liftruck's Bedford Park, Illinois factory, while the remaining components come from reputable North American vendors. Hoist Liftruck uses many of the same North American components throughout its product line to keep costs low and make parts immediately available 24 hours a day.

Not only is the HRS Series extremely eye-appealing, it has been designed and tested to meet or exceed current, worldwide regulations for stability, sound levels, and safety. Hoist Liftruck's engineering staff uses the latest CAD three-dimensional solid modeling technology to develop the highest quality lift truck in terms of performance, durability, operator safety, comfort, visibility, and serviceability.

The combination of in-house manufacturing and reputable, domestic vendors allows Hoist Liftruck to have among the fastest lead times in the industry. Hoist Liftruck's standardization of components helps ensure fast lead times and provides customers with excellent service and parts support. By providing single, premium brands, Hoist Liftruck is able to provide maximum support for each component. While other manufacturers may provide a wide range of options, sufficient support for those options is often lacking.

Hoist Liftruck's CNC department operates 24 hours a day machining various parts for components, including cylinders, steer axles and wheels. These CNC work cells ensure fast and accurate machining, resulting in superior lead times and dependable parts support.

Every Hoist Liftruck is backed by a company dedicated to complete customer satisfaction. From the initial contact through the sale, and for as long as you own a Hoist Liftruck, our experienced staff works for you.

- 12 -month/2,000-hour warranty (parts and labor)
- Optional extended warranties up to 12,000 hours
- Lift truck operation, parts and service manuals included
- 24-hour parts and service support

Hoist Liftruck also has a worldwide dealer network that keeps a majority of its replacement parts in stock for immediate pick up or delivery, as well as technicians to assist with preventative maintenance reports. Visit [www.hoistlift.com](http://www.hoistlift.com) to locate your nearest Hoist Liftruck dealer.



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Made in the USA  
Hoist Liftruck Mfg., Inc. continually improves its products. Specifications are subject to change without notice.



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*Courtesy of MachineMarket*