

# MH3027

## WALK AROUND



### KEY FEATURES AND BENEFITS

- **Safety:** Ground level ingress/egress, position sensors, anti-slip material, ladders and hand rails
- **Durability:** Purpose built structures for long life
- **Productivity & Efficiency:** Systems synergy – more power while consuming less fuel
- **Mobility:** Heavy duty mechanical four wheel drive transmission with oscillating rear axle
- **Technology:** Cat® Product Link™ (PLE641) and the machine's operating system provides enhanced diagnostics and adjustability

### SAFETY

- With a patented cab riser system, operators can enter and exit the cab at ground level, significantly reducing the potential for slips and falls. Cab to platform or cab to ground are options on the MH3027.
- Ground level and in-cab safety lowering valves allow the cab to be safely lowered to the ground should a machine malfunction occur.
- System sensors continuously monitor machine positioning to prevent attachment interference with the cab (stick limiter) as well as operation while "out of position".
- Falling Objects Guard System (FOGS) consists of two parts that are bolted to the cab: an upper structure to protect the operator from objects falling from overhead and a front structure to protect the operator from objects coming toward the front of the cab. Both guards are optional.
- Hydraulic lock-out valves are installed on the boom, stick, outriggers, and cab riser cylinders to prevent uncontrolled lowering in the event of a hydraulic hose failure.
- A rear view camera, with integrated microphone, mounted to the counterweight improves operator visibility and communications on the work site. An optional side view camera is also available.
- Non-slip surfaces, hand railing, angled ladders, and comfortable platforms provide safe access for daily checks and maintenance activities.

### STRUCTURES

- The MH3027 has available a 25'2" boom/19'10" drop nose stick combination or a 22'1" boom/16'7" straight stick combination available.
- A 19'10" (6.05 m) long front stick provides a maximum horizontal reach of 44'8" (13.62 m), with a maximum vertical reach of 49'10" (14.94m).
- A 16'7" (5 m) short front stick option provides maximum horizontal reach of 39'0" (12.09 m), with a maximum vertical reach of 44'5" (13.54 m).
- Boom and stick are fabricated using continuous top and side plates constructed of high grade structural steel that eliminate the need for seams, cross welds, and baffles.
- 15-20% oversized threaded pins are used in areas susceptible to side loading.
- A tapered and shrouded frame design with extensive chamfering and radiused corners significantly reduces stress concentrations to ensure long life.

### POWERTRAIN

- The MH3027 features the Cat C7 ACERT™ 7.1 L (427 in<sup>3</sup>) 6 cyl in-line engine rated at 173 hp (129 kW).
- Engine meets US EPA Tier 4 Final and EU Stage IV emission standards.
- Optimized performance while achieving enhanced fuel economy through matched Powertrain and Hydraulic systems.
- Oversized cooling system, rated for 275 hp (202 kW) features an on-demand, variable speed, auto-reversing hydraulic fan motor capable of purging debris at adjustable intervals and duration to ensure efficiency of purging debris at adjustable intervals and duration to ensure maximum efficiency.
- Side-by-side radiator, hydraulic oil cooler and air-to-air aftercooler further ensure maximum cooling system efficiency while reducing the chance for plugging.
- Enhanced sorting ability through the proprietary solid state generator control.
- Standard block 120V heater maintains temp to speed warm up of engine, increasing cold start capabilities.

### TECHNOLOGY

- The operating system provides machine systems access to check machine conditions and maintenance reminders, adjust machine functions, and to run diagnostics that include reviewing the machine log for past incidents.
- Cat Product Link PLE641 assists with the management of assets, maximizes efficiencies, and lower operating costs.



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### HYDRAULICS

- Electric over hydraulic system provides smooth and quick response, instant adjustability, and easy diagnostics. This allows hydraulic functions to be divided into upper & lower control valves for more efficient hydraulic utilization.
- A closed-loop independent swing system with regenerative braking guarantees full swing torque/speed is achieved without impacting other machine functions.
- Main boom cylinder regeneration further enhances efficiency.
- Efficient closed-center load sensing hydraulic system delivers quick lift performance while providing excellent control regardless of boom, stick, or travel demand. This allows for high pressure and low pressure tasks to occur simultaneously without compromising fuel efficiency.
- Reliable Cat XT™ hoses along with o-ring face seals complete the hydraulic system and reduce the risk of leaks and blown lines, helping protect the environment and reduce operating costs.
- Hydraulic warm-up valve speeds hydraulic oil warm up time in cold climates without the need for constant operator input.
- Optional in-tank 120V heater maintains hydraulic fluid temperatures in cold climates.

### UNDERCARRIAGE

- True four wheel drive provides excellent maneuvering performance even on unimproved terrain.  
Power is provided by a variable displacement hydraulic motor through a 2-speed transmission, which drives the two axles.
- Infinitely variable travel speeds up to 12.4mph (20 km/h) with shift-on-the-fly creeper mode for travel up to 3.3mph (5.3 km/h).
- Four wheel hydraulic braking is coupled with hydraulically applied friction disc brakes integral to the final drive. These are engaged when the brake pedal is depressed and provide adequate braking to stop quickly.
- Oscillating rear housing with hydraulic lock feature ensures stability, traction, and comfort while traveling over rough terrain.
- Steering components housed inside the lower structure for protection
- Hydraulically operated stabilizers contain greaseless bearings and are equipped with the added protection of guarded cylinders/lockout valves.
- Solid rubber tires provide long life in the adverse conditions in a scrap yard.

### CAB

- Joystick steering removes the need for a steering wheel, significantly improving visibility to the work tool.
- Joystick sensitivity is adjustable and can be customized and easily saved in the cab color monitor for up to four operators.
- The addition of a skylight, with sunshade, ensures visibility when working at a height above the cab.
- The color monitor provides current machine conditions at a glance and provides quick access to machine features and adjustments.
- Independent rear camera and optional right side camera color monitor with volume control improves visibility of the work area.
- The fully adjustable air-ride suspension seat provides the operator with the comfort needed to sustain a productive shift.
- Pressurized cab with all season automatic climate control provides a comfortable environment for the operator in all weather conditions.

### SERVICEABILITY

- Component identification and access is made easy through non-slip servicing platforms and service doors located on the right, left and top of the machine.
- Right service panel gives convenient access to cooling package cores, engine, dipstick, engine oil filter, primary fuel water separator, hydraulic pressure diagnostic ports, and kidney loop filter.
- Left service panel gives convenient access to the optional Cat 15 kW genset, air filter and restriction gauge, fuel fill, battery jump lugs, and a weather-tight electronics compartment.
- Top service panel gives convenient access to the engine, fuel tank, diesel exhaust fluid tank, air filter, hydraulic tank, hydraulic filters, upper control valve, swing drive, swivel and autolube grease canister.
- Compartments are spacious and hinged with gas cylinders.
- The operating system monitor displays machine system warnings, errors, and faults in plain language. In many cases, the remote accessibility feature allows for systems diagnostics and updates without connecting a computer to the machine.
- The built in maintenance reminder lets the operator know when maintenance is due. There is also a maintenance countdown screen for quick reference when the next major services are due.
- Less maintenance required with grease-less bearings in cab riser linkage and stabilizers.
- Automatic lubrication system is factory set to 15 min. intervals, to improve machine life & reduce operating costs.

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