

# Medium Wheel Loaders CAT®

Waste Handlers



950M

962M

966M

966M XE

972M

972M XE

980M



RELIABLE, PRODUCTIVE AND FUEL EFFICIENT

- 10% more fuel efficient than the industry leading K Series
- Up to 25% more fuel efficient than H Series
- **Cat® Fusion™ coupler system and work tools** provide a wide range of work tools and allow the same work tool on different sizes of wheel loaders
- **Cat engine with ACERT™ Technology** which meets U.S. EPA Tier 4 Final and EU Stage IV emission standards and includes Cat Clean Emissions Module for continuous and efficient operation
- **Advanced powershift transmission** with a standard lock up clutch torque converter and lock-to-lock shifting delivers smooth shifts, fast acceleration and speed on grade
- **Next generation axle (950-972)** with standard on-the-go disc-type front manual differential locks to provide optimal traction in varying underfoot conditions for improved productivity
- **Next generation load-sensing hydraulic system** to provide optimal control of machine functions

EASE OF OPERATION

- **Best-in-class operator environment** for unmatched operator comfort and efficiency
- **Advanced technology with Cat Connect** to monitor, manage and enhance job site operations

SERVICE ACCESS

- Legacy one-piece hood, centralized service centers, windshield cleaning platform and harness tie-off to provide the best in class service access

OPTIONAL MACHINE GUARDING

Purpose-built guarding is available to help protect your machine from the harsh environments common in waste applications. The machine guarding protects the machine's major components and systems for reliability durability.



Contents

Operator Environment.....	4
Additional Optional Features.....	5
Guarding Options .....	6
Productive .....	8
Versatility.....	10
Easy to Operate .....	12
Serviceability .....	13
Notes.....	14





**In the harsh and demanding environment of a waste handling application, you need a wheel loader designed for the job so that you can do yours. The industrial package is specifically designed to protect all major components and systems for use in waste handling applications to maximize production.**

**Additional options and work tools are available allowing you to customize your Cat Medium Wheel Loader to match your specific requirements and maximize production. Read on to learn more about how these waste handling wheel loaders deliver sustainable productivity, fuel efficiency, ease of serviceability, ergonomics and operator comfort.**



# Operator Environment

Safe. Comfortable. Efficient.

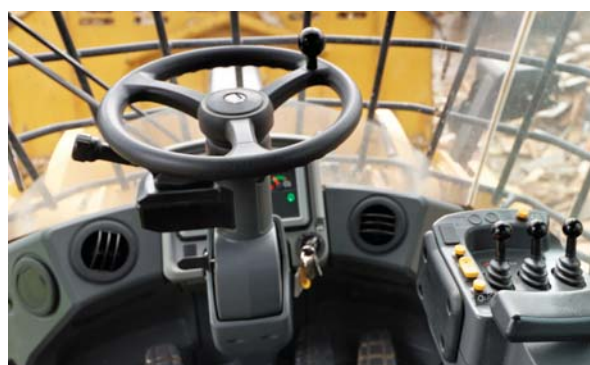
## Electro-Hydraulic (EH) Joystick Steering with Force Feedback (Speed Sensitive)

Your operators will enjoy and quickly adopt the industry leading seat mounted EH joystick steering system, which provide precision control and dramatically decrease operator arm fatigue. For operators who prefer a steering wheel, an electro-hydraulic steering wheel is available as an option.



## Conventional Steering Wheel (SW)

The conventional steering configuration on these machines offers a low-effort hand metering unit (HMU) hydraulic steering system. Load sensing steering directs power through the steering system only when needed.



Steering System	Machine				
	950M	962M	966M/ 972M	966M XE/ 972M XE	980M
Joystick	Optional	Optional	Standard	Standard	Standard
EH SW			Optional		Optional
HMU SW	Standard	Standard			

## Central Display

The central display panel has a large text box, five analog gauges, and LED warning indicators. The large text box provides in-language information about machine operation, feature activation and system troubleshooting and calibration.



## Touch Screen Display

A new multipurpose color touch screen display dramatically simplifies the operator interface; with machine controls and rear vision camera standard. Intuitive navigation with in-language text enables operators to modify certain operating parameters and monitor machine conditions.



## Implement Controls (EH)

Seat mounted implement controls provide your operator with precise control of the work tool, all while moving with the seat for maximum comfort. In-cab programmable kick-outs and automatic cylinder snubbing are easy to set on-the-go for tilt, lower and lift, ideal for repeatable cycles. Implement joystick (not shown), is also available with two and three functions.

# Additional Optional Features

## Customized Options Designed for Waste Handling



### Cooling System

An optional variable pitch fan helps clean the cooler cores from the backside. The variable pitch fan acts like an airplane propeller in that the pitch of the blade is actually changed to switch the direction flow of cooling air. This fan is beneficial in providing more airflow in the reverse direction (when compared to a system that simply reverses the fan rotation), which more thoroughly expels any debris build up in the cooling cores. The variable pitch fan minimizes the need for an air wand used to clean the backside of the cooler cores. For very high debris applications often found in waste applications, consider pairing the variable pitch fan with optional high debris cooling cores for a robust solution and reduced maintenance.

### Air Systems

In conjunction with the standard strata precleaner, the optional screened turbine precleaner extends filter element life and helps to provide clean air to the engine in high debris applications by ejecting debris before it ever reaches the air cleaner. Similar in function, an HVAC precleaner is also available to extend service intervals of the primary cabin air filter. An activated carbon recirculation filter helps remove odors from the cabin for an improved operator environment.

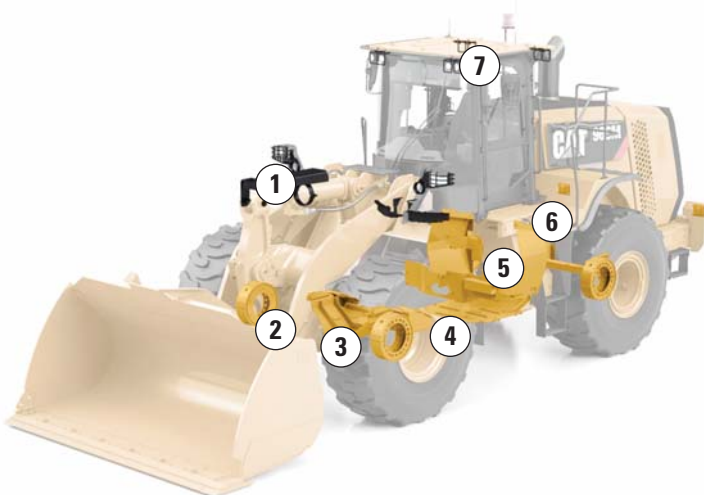
Optional RESPA filtration for the cabin air replaces the standard primary cabin air filter with a powered precleaner and features a high efficiency MERV 16 air filter.



# Guarding Options

## Protecting Your Investment

- 1. Tilt cylinder guard** – This heavy duty sliding guard mounts to the cylinder and protects the tilt cylinder rod from damage due to contact/impact from falling debris or material spillage over the work tool. If the rod(s) are pitted, scratched, the cylinder seals may be worn prematurely.
- 2. Axle seal guard** – These guards bolt to the axle shafts and protect each axle seal by preventing material, springs, wire, from cutting and damaging seals as material winds around when the tires rotate.
- 3. Front frame guard** – This guard bolts to the front frame to protect the caliper parking brake and prevent material from accumulating in the front frame, protecting the drive shaft.
- 4. Hinged power train guard** – This guard bolts to the rear frame to protect the transmission from contact with debris and prevents material ingress around the transmission. The guard is hinged to make servicing easier. An electric actuator is available (966-980) to provide easy removal of accumulated debris.
- 5. Hitch guard** – These guards bolt to the butterfly plate to prevent debris from packing around the transmission and hydraulic pumps.
- 6. Steering cylinder guards** – These guards bolt to the frame just forward of the tires to protect the steering cylinders, sensors and pins from damage from debris from the rear tires.
- 7. Light guards (roading, work, rear)** – These guards protect the front roading lights, cab work lights (standard halogen and premium lights) and rear stop/tail lights from damage by debris.
- 8. Steel rear deflectors** – The standard non-metallic rear deflectors are replaced with steel versions for use in extreme applications.
- 9. Narrow front fenders** – The narrow front fenders replace standard full-coverage fenders to provide more clearance to walls when the machine is operating in a confined space.
- 10. Reinforced service centers and platforms** – The electrical and hydraulic service centers are reinforced with additional bolted wear plates to resist damage to key components in the service centers. The service platforms are reinforced with welded-on plates to support additional weight for 3rd party suppression systems.



- 11. Heavy duty ladder and cable steps** – The heavy duty ladder replaces the standard ladder to provide additional resistance to damage when the machine is operated in a confined space. Steel cables replace the standard rubber strap and mates with the heavy duty steps to withstand the extreme nature of the application.
- 12. Turbine trash precleaner** – Cyclone engine air cleaner that uses centrifugal force to spin debris out of the air stream, extending the service interval for the air filter elements. A metallic screen prevents larger debris from clogging the filter.
- 13. Carbon fresh air filter** – Activated charcoal filter replaces the standard cab recirculation filter to reduce the odor causing debris particles in the operator environment.
- 14. Lift cylinder baffles** – Lift cylinder baffles prevent the accumulation of debris and compaction under the lift cylinders, protecting the cylinder from damage.



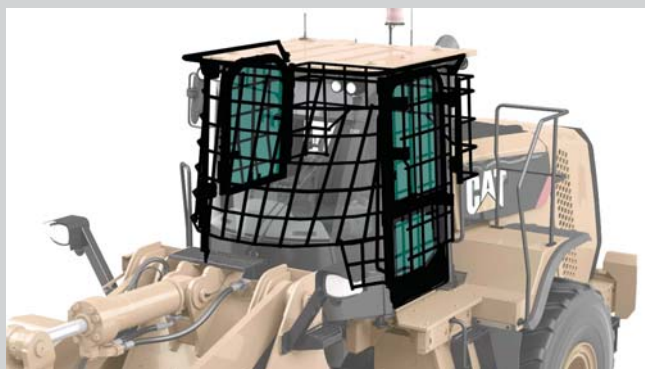
## Industrial Package Features and Benefits – Optional

**Counterweight, Rear Guard** – Optional heavy duty radiator guard provides additional rear machine protection in this tough application.

The guard is hinged for easy access to the airborne debris screen and cooling core.



**Window Guards** – Depending on the level of protection required, three optional guard designs are available to help protect the cab glass from damage while working in tough waste applications. There are two front windshield guard options and a full cab glass guard available to protect your wheel loader. Rubber mounted flat glass is also an available option for easy replacement of front glass.





# Productive

## Work Smart and Move More



### Linkage

The optimized Z-bar linkage on the 950M and 962M provide improved visibility because of hydraulic hose placement and structural components being out of the operator's sight lines. Parallel lift capabilities, high breakout forces and high tilt forces at maximum lift enhance performance and versatility.

The proven Z-bar linkage on the 966M-980M combines efficiency with excellent visibility to the tool resulting in excellent penetration into the pile, high breakout forces and superior production capabilities.

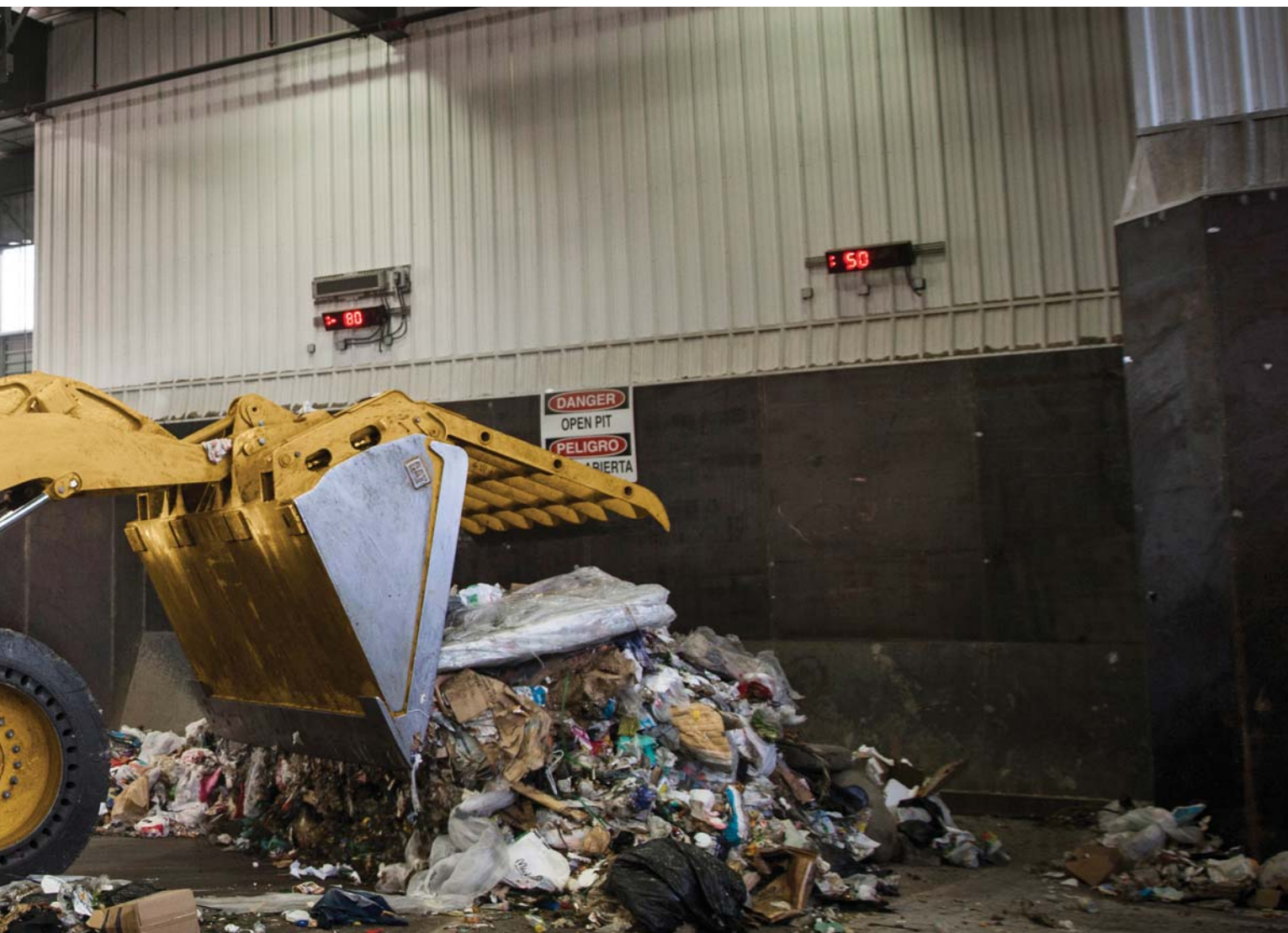
High lift linkages (950M-980M) are an available option to meet your needs based on work site, allowing the operator to stockpile higher and provides more versatility to load outbound trucks.

### Transmission

The powershift transmission now includes a lock up clutch torque converter standard on all M Series. These new torque converters have been matched with the engine power and hydraulics to improve performance and fuel efficiency while managing the pile or loading trucks. These rugged transmissions also have a new split-flow oil system which use new multi-viscosity oil to reduce parasitics and improve fuel economy.

For an even further reduction in fuel consumption, the Cat continuous variable transmission in the 966M XE and 972M XE enable optimized power train and hydraulic systems, providing full hydraulic power at a lower engine speed. This integrated system approach means energy is directed to where your operator needs it most.





## Axles

The new on-the-go disc-type differential locks will improve tractive ability in these applications thereby increasing productivity. The 950M-972M models come standard with front axle differential locks which are manually activated by a switch on the floor. Optional fully automatic front and rear axle differential locks operate by measuring differences in axle speeds and require no operator intervention to activate. These disc-type differential locks will reduce tire scuffing compared to other traction aids further reducing operating costs for customers.

## Hydraulics

The hydraulic systems have significant design changes and customer value improvements. The main hydraulic valve is now a mono-block with an integrated ride control section. The mono-block design reduces weight, has forty percent fewer leak points and is common across all M Series models. Auxiliary third and fourth (950M-972M only) hydraulic functions can be easily added at the factory or in the field with the addition of a second remote valve. A new thermal bypass valve has been added to improve hydraulic system warm-up.

## Ride Control

The next generation of ride control works as a shock absorber, improving ride quality and smoothness over rough surfaces, often found in transfer stations, increasing your operator confidence, comfort and efficiency at both extremes; fully loaded and unloaded work tool. When paired with the Fusion coupler, from a loaded high-dump bucket to a fork to move material, the ride control system provides reduced cycle times, better productivity and a smoother, more comfortable ride for the operator.

# Versatility

## Work Tool Options to Meet Your Needs

### Work Tool Attachments for Waste Applications

A variety of pin-on and coupler attachments are available for challenging waste handling applications. Cat attachments are durable, reliable and designed for performance and efficiency with your Cat wheel loaders.

### Swap Attachments Quickly

A quick coupler allows you to move your machine quickly from one task to the next, utilizing a variety of different attachments.

### Fusion™ Quick Coupler System

A Fusion Coupler gives one common interface across a range of medium and small wheel loaders. One attachment can be shared by small and medium size loaders. The Fusion Coupler System is available for 950 to 972 Cat loaders.

Performance with the Fusion system is virtually identical to machines with attachments directly pinned on. The coupler sits back, close in to the loader arms. Offset of the attachment is minimal, enabling the machine to perform at its peak.

Fusion coupler engages the attachment, pulls it in close and keeps it tight for a rattle-free fit as you move around your job area. Because the attachment doesn't bounce or rattle, coupler and attachment both have a long service life providing many productive hours of use in your fleet.







1) Fusion Quick Coupler System 2) Waste Bucket 3) Grapple Bucket 4) High Dump Bucket 5) Performance Series General Purpose and Material Handling Bucket 6) Performance Series Light Material Bucket 7) Multi-Purpose Bucket 8) Pallet Fork 9) Load and Carry Bucket 10) Doze Bucket

## Forks and Buckets

### Waste Buckets

Designed for a long service life in the harsh world of refuse. These high capacity buckets are well-suited for loading, sorting and other transfer station work. Several styles are available for handling, tamping, loading, carrying and dozing waste material with your wheel loaders.

### Grapple Buckets

Dual top clamps grab and hold loose material. This bucket is a key producer in transfer stations and landfills. Grapple buckets are available for 950 to 972 size loaders.

### High Dump Buckets

These buckets reach up and over the sides of loading bins and truck sides. Cylinders and a bottom hinge cause material to roll out and dump the load at a much higher point than other buckets. High Dump buckets are available for 950 to 972 size loaders.

### Cat Performance Series Buckets

This bucket series is perfect for loading, carrying, stockpiling and backfilling a variety of applications and materials. Bucket shape, weight, lift and tilt capability are designed specifically for Cat loaders. Buckets load easy and carry more – making your loader efficient and highly productive. A wide range of sizes and styles will increase your productivity with 950 to 982 size loaders.

### Multi-Purpose Buckets

The unique, four-way action of these buckets allow you to load, bulldoze, clamp pipe or large chunks of concrete, and clean up debris. These buckets are available for 950 through 972 size loaders.

### Pallet Forks

Pick up and transport a variety of banded or baled material. Fusion pallet forks feature an open frame design and offset tines for maximum visibility to the tine tips. You can get a Cat Pallet Fork for every loader in your fleet.

Contact your local Cat dealer for details about specific attachments available in your region.

# Easy to Operate

Safe. Comfortable. Efficient.



Improving operator efficiency remains a key design goal for the M Series waste handler. Ensuring operators are safe, confident in the control of their machines, have a clean, comfortable and quiet operating environment with controls that are intuitive and low effort all contribute to lower operator fatigue and better performance.

## Cab Access

A switch has been added to the electronic service center which unlatches the door remotely (optional). The gas strut then swings the door open all while the operator is safely on the ground. The angle of the steps up to the cab have been increased to an optimal fifteen degrees enabling operators to walk up like stairs versus climbing more vertically like a ladder. Grab handles have been repositioned so a secure three points of contact can be maintained at all times. Cab tie-off point is standard to allow the front windshield to be cleaned from the platform while fall-restrain is provided.

## Visibility

Once in the cab, the new door securely seals against the new roll formed ROPS posts and the lower glass panel has been extended several inches to improve visibility to the left side of the machine. New larger convex mirrors improve visibility to the rear and integrated spot mirrors provide visibility close to both sides of the machine.



## Sound

Viscous cab mounts connect the cab to the frame of the machine, decreasing noise and vibration the operator is subjected to. The result is a sustainable work environment and well-rested operator, remaining efficient and productive.

## Lights

Optional cab-mounted work lights are available which increases the total work lights to eight to provide enough light to allow your operators to work safely through the night. Optional reversing strobe lights are enabled when reverse is selected to offer a visual aid to workers on the ground.



# Serviceability

Easy to Maintain. Easy to Service.



## Engine Access

The Cat sloped “one-piece” tilting hood provides industry leading access to the engine. Its design has further been improved on all M Series wheel loaders to provide the best-in-class service access to engine, oil levels and coolant sight gauge.

## Service Centers

The electrical and hydraulic service centers provide grouped ground level access to numerous features, enhancing safety and convenience for your operators and service technicians, while reducing service time.

The electrical service center, located beneath the left platform, contains the maintenance free batteries, a fuse relay panel, main disconnect switch, ground level engine shutdown switch, hood tilt switch, and the jump start receptacle.

The hydraulic service centers are now virtually identical for the M Series product line. This new consistent layout makes it easier for service technicians who work on a variety of M Series models.







For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

AEXQ1618 (08-2015)

© 2015 Caterpillar  
All rights reserved

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, SAFETY.CAT.COM, their respective logos, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

