

EX-6 Series

- EX1900-6
- EX2500-6
- EX3600-6
- EX5500-6



HITACHI

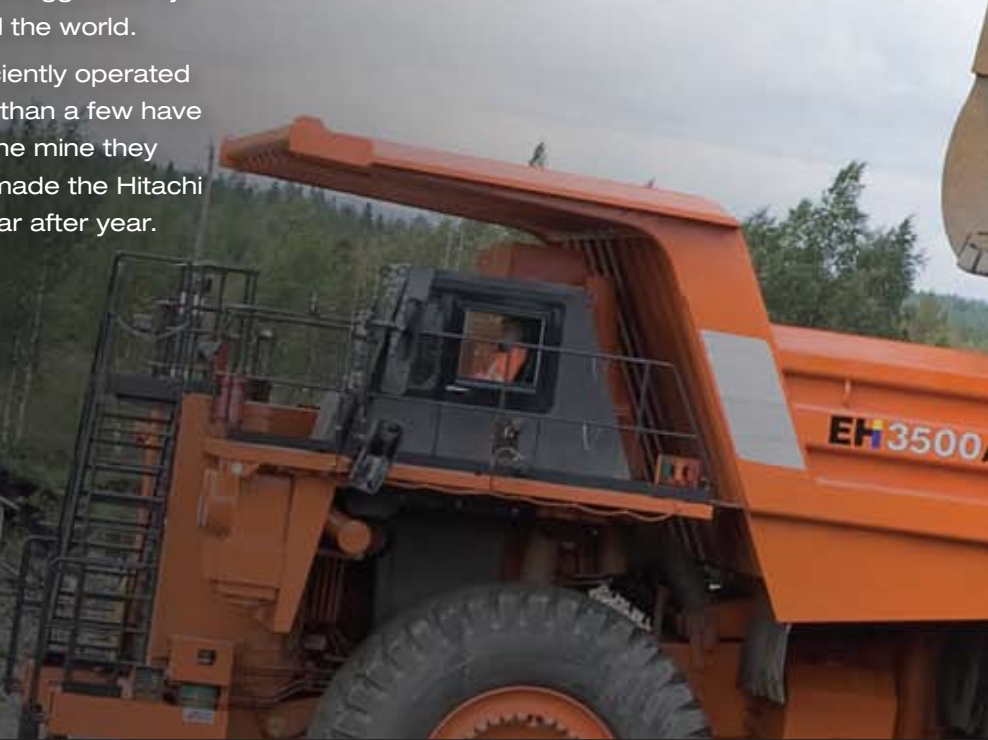
ALWAYS | PRODUCTIVE

Built for quality, built to last.

Best in field.

Hitachi mining excavators are designed, engineered, and manufactured to provide outstanding productivity and the lowest competitive cost of operation. The new EX-6 Series is based on the proven qualities of the UH Series of the 1970s, the first EX Series introduced in 1988, and all subsequent improvements suggested by real-life experiences from mines around the world.

Many Hitachi shovels are still being efficiently operated past the 100,000-hour mark. And more than a few have outlasted the pit and sometimes even the mine they started to dig! It's that legacy that has made the Hitachi mining excavators the leading brand year after year.



	EX1900-6	EX2500-6	EX3600-6	EX5500-6
Engine — Cummins Tier 2	QSK38C	QSK50C	QSK60C	2-QSK50C
Power	1,086 hp	1,400 hp	1,944 hp	2,800 hp
Weight — shovel	421,075 lb. (191 000 kg)	548,900 lb. (249 000 kg)	795,900 lb. (361 000 kg)	1,142,000 lb. (518 000 kg)
Weight — backhoe	423,280 lb. (192 000 kg)	548,700 lb. (248 000 kg)	791,500 lb. (359 000 kg)	1,142,000 lb. (518 000 kg)
Bucket capacity — shovel	14.4–15.7 yd ³ (11.0–12.0 m ³)	19.6–21.6 yd ³ (15.0–16.5 m ³)	27.5–30.1 yd ³ (21.0–23.0 m ³)	35.5–40.0 yd ³ (27.0–30.6 m ³)
Bucket capacity — backhoe	5.8–15.7 yd ³ (4.4–12.0 m ³)	19.6 yd ³ (15.0 m ³)	28.8 yd ³ (22.0 m ³)	38.0 yd ³ (29.0 m ³)



Ensured reliability through strong dealers.

It's a big commitment.

Hitachi mining excavators are sold and supported by a network of local dealers backed by the full force of Hitachi.

The level of support provided depends on you, the excavator owner. Of course, through the warranty period, mechanics literally stand by to ensure your shovel or backhoe provides full satisfaction. But beyond the warranty period, your Hitachi dealer is ready to provide, at a minimum, training, parts management, component rebuilds, and on-demand mechanic services. At the same time, each dealer is fully trained on equipment maintenance, repairs, and troubleshooting, and is capable of providing a full Maintenance and Repair Contract (MARC) for support at a competitive cost.

Hitachi provides, on a worldwide basis, satellite-based remote monitoring of all service functions, either separate or in conjunction with a variety of mine-management systems. Additionally, Hitachi provides parts backup both at the factories and at strategic parts depots. The company factory-support managers are assigned to specific mines and provide oversight to help ensure performance regardless of the level of support chosen by the mine.



■ Local dealers know your machine.

■ A customized MARC agreement ensures maximum uptime.

■ You can count on trained professionals.



Bulletproof engineering.



■ All Hitachi mining excavators are made in Japan.

Building the best machines for designated results.

To maintain Hitachi's leadership position in the field of mining excavators, every component of each model is thoroughly engineered, tested, revised, and tested again. Only then is the machine allowed to go into the field as a preproduction model for a minimum of one year while Hitachi engineers constantly monitor all components for correctness in design functionality. If all tests are passed, the model is introduced for sale. The new EX-6 Series is no different. Preproduction models have been operating at select mines throughout the world, in varying conditions. During that period, various components have been modified and tested again. So the EX-6 model you buy really is not "new," it's the result of thousands of hours of rugged use.

In each of the multiple Hitachi manufacturing plants building mining excavators, state-of-the-industry tools, jigs, and management processes are in place to ensure that each component and each completed model, when assembled at the plant, is tested before final paint and is 100-percent "Hitachi ready" to go to work in your mine.





■ Front guard is an available option.

Exceptionally great production.

Why do customers choose Hitachi?

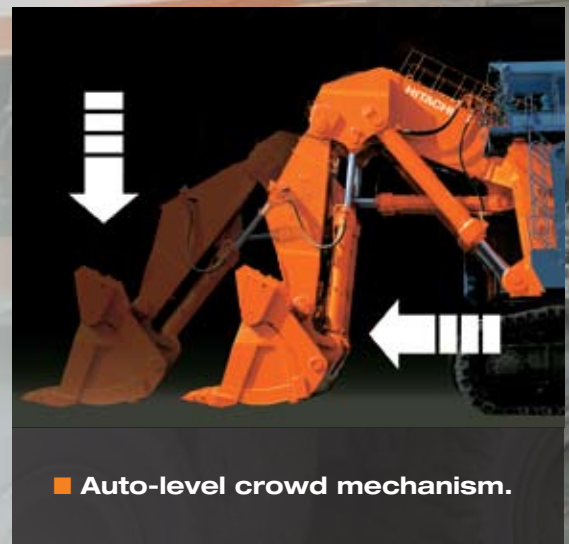
- High availability
- Low operating cost
- Better fuel economy
- Lower maintenance requirements

We build machines designed to earn your trust. We believe that with Hitachi, you're getting the best operating hydraulic mining shovel or backhoe money can buy. Obviously a lot of mines agree. We have delivered over 600 units larger than 150 tons to all parts of the world, many to repeat customers.

Less downtime means more production — and the EX-6 Series features cutting-edge technologies for reducing downtime and maintenance costs. For example, all models are equipped with a highly sophisticated monitoring system. Information is displayed on the new 10.5-inch in-cab monitor for easy operator access. The monitor can also be used by technicians to quickly troubleshoot alarms and fault codes, with screens providing information and machine schematics, allowing the technician to easily diagnose and repair the machine in order to get it back to work quickly and reduce downtime. The monitor allows for easy tracking of preventative maintenance items as well.

Exceptional production also comes from the length of time it takes to fill a truck. Hitachi mining shovels feature an exclusive auto-level crowd mechanism, allowing for easy one-lever crowding of the bucket into the material at a constant level, to keep a cleaner floor and increase bucket fill.

Hitachi's unique hydraulic system tops the industry for smooth, combined bucket-tilt, boom-raise, and machine-swing action. The result is a consistent 25- to 30-second loading effort, pass after pass, day after day.



	EX1900-6	EX2500-6	EX3600-6	EX5500-6
Passes to fill Hitachi truck	EH1100-3: 3-4 EH1700-3: 5-6	EH1700-3: 3-4 EH3500ACII: 6-7	EH3500ACII: 5-6	EH3500ACII: 3-4 EH5000ACII: 5-7
Hitachi truck capacities	EH1100-3 65 ton (59.0 tonnes)	EH1700-3 100 ton (90.9 tonnes)	EH3500ACII 185 ton (168.0 tonnes)	EH5000ACII 320 ton (290.0 tonnes)



■ **BUCKET DESIGN:** Exclusive Hitachi design with sharp 70-degree tilt and bottom-dump bucket enhances dig/load operations and productivity.

■ **AUTO-LEVELING:** Patented Hitachi hydraulic design maximizes bucket fill with the least amount of energy and operator effort.

■ **MULTIFUNCTION:** Hitachi hydraulics are best-in-class for multifunction tilt, raise, swing action, and fast pass speeds.

■ **ELECTRIC JOYSTICKS:** Electric control levers provide quick response.

Ergonomic excellence.

Comfort built right in.

High production and low operating costs also come via an operator capable of keeping an aggressive pace throughout the entire 10- to 12-hour shift — no easy task regardless of skill level.

Hitachi EX-6 Series Excavators feature cutting-edge electric joysticks for bucket/boom/swing control requiring half the effort of conventional lever controls.

The roomier seat and cab allow operators of all sizes to feel comfortable and well-supported, with plenty of room for legs and feet.

Each cab is well-insulated and temperature-controlled through no less than eight vents. A new system provides 4,729-kcal/hour heating and 4,558-kcal/hour cooling. The system also pressurizes the cab to keep dust out while maintaining a comfortable temperature, regardless of outside conditions.

The air-suspension seat cushion automatically adjusts to the operator's weight, and the entire console easily adjusts, so at shift change it's easy for the next operator to find his comfort zone.



■ Electric joysticks provide responsive fingertip control.



■ 10.5-inch color LCD monitor displays operating and sensor-fault information.



■ With remote cameras, the operator has virtually no blind spot.



■ Steps fold hydraulically on EX2500-6 and larger models — optional on EX1900-6.



■ Controls are logically positioned within easy reach.

The ergonomic layout of the cab means the operator will do less stretching and reaching when using the controls. Less operator fatigue means a more aggressive pace at shift hours six through ten.

The entire cab rests on a package of fluid-filled elastic mounts for reduced vibration and a more comfortable ride.

The cab design provides excellent visibility left, right, in front, and at an elevated height, so the operator is looking into the bed of the highest truck.



■ Optional equipment shown.



■ **HYDRAULIC OIL COOLERS:**

Separated from the engine radiators for improved heat balance. Hydraulic-driven fans are used to cool the hydraulic oil. Fan settings are controlled by oil temperature for optimal cooling and efficiency.



■ **LINKS WITH GUIDES:**

EX1900-6 uses tractor-style undercarriage. EX2500-6 and larger models use shovel-type undercarriage, with cast shoes and roller guides.



■ **SOLID TRACK FRAME:**

A solid forged pedestal mount for the swing bearing on the center track frame for improved reliability — a Hitachi exclusive.

A record of high availability.

All around the world.

Hitachi mining excavators have gone to work around the world since 1979, and most are still in service. A package of five EX5500 Shovels have worked thousands of hours each at the Yanacocha Mine, where they continue to be the only shovels used, with over 96-percent availability. The PT Kaltim Prima Coal Mine has recognized multiple milestones beyond 100,000 hours of continuous operation with their fleet of EX3500-class mining shovels.

Simply put, mine operators find Hitachi excavators to be the most durably built machines in their class.

- **RIGID BOX-FRAME DESIGN:** Resists bending and twisting forces thanks to computer-aided analysis.
- **HIGH-PRESSURE FILTER:** Oil is filtered at high pressure downline from the pumps to minimize system contamination.



Great reliability from easy serviceability.

Maintainable design.

Hitachi mining excavators are designed to be maintainable. They are carefully engineered for full 24-hour operation and only require brief downtime for fueling, greasing, and inspection.

- Dust ejectors automatically expel dust from the air cleaners. A contamination sensor alerts the excavator operator if there is excessive contamination of the hydraulic oil.
- An ergonomically friendly stairway quickly leads to the engine and hydraulic level. A wide walkway around the engine and the hydraulic system, including a multipurpose counterweight, allows quick access to all sides.
- Air-cleaner elements are easy to reach and quick to change.
- A centralized oil-filter system makes filter inspection and change-out quick and easy.
- Auto-lubrication of front joint pins and the swing circle eliminates daily manual lubrication.
- Fast-fill system for hydraulic oil as well as diesel and other fluids makes these jobs quick and easy from the ground.



■ **WIDE-ACCESS SERVICE DOORS:**
For easy access to all components and machine servicing areas.



■ **CONTAMINATION SENSOR:**
Provides quick troubleshooting of contamination issues within the hydraulic system — monitors pumps and motors.



■ **CENTRALIZED FILTER SYSTEM:**
Allows for easy access to filters during maintenance intervals for fast and easy replacements.



■ Ergonomic folding stairs provide easy access.



■ **FAST-FILL SYSTEM:**
Ground-level access for fast, easy, and clean replacement of machine fluids, including fuel, coolant, and lubricants.



■ **COUNTERWEIGHT WALKWAY:**
Allows easy access to engine, pumps, and radiator for service and inspections.



■ **AUTO-LUBRICATION:**
Automatically lubricates all bucket and front-attachment pins and swing bearing.

Worldwide equipment monitoring.

High production comes from high uptime. Now, all appropriate personnel can have instant access via the Internet to information for preventive maintenance decisions.

Anywhere. Anytime.

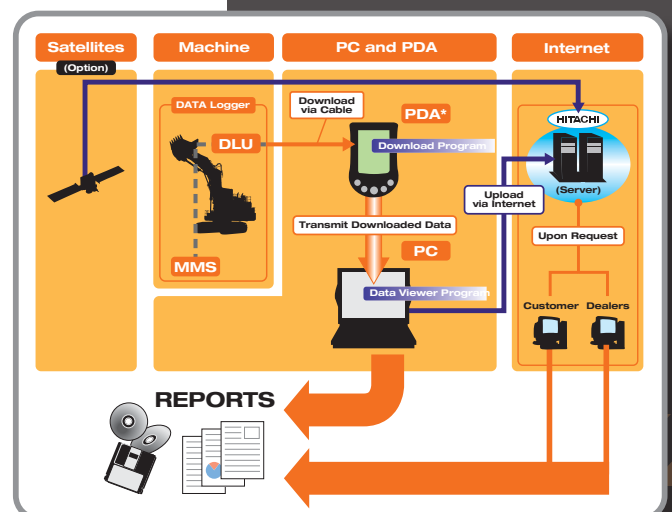
For a number of years, each Hitachi excavator has been equipped with a “black box” that continuously records engine load factors displayed in 15-minute increments, machine alarms and faults such as high oil temperature, and daily operational hours.

Hitachi has taken this to the next level by creating Global e-Service. In addition to the above, Global e-Service also tracks suggested maintenance intervals, dealer-input maintenance/service records, and GPS-based map information of machine location.

Every day information is uploaded from the excavator via satellite and made available for downloading and viewing through the Internet. Each time your local Hitachi dealer makes an inspection of the machine, his report is added to the information available for download. These reports can include nearly all possible predictive testing results such as oil sampling, vibration analysis, ultrasound, and thermographic studies.

Managers at all levels within your organization as well as anyone you designate, such as your Hitachi dealer and Hitachi corporate, can review the information simultaneously for group discussion and planning. Preventive maintenance is the name of the game, and this tool helps ensure there are few, if any, surprises.

It is Hitachi's goal that unplanned maintenance or repairs are minimized. We believe maintenance should be done with considerable forethought, which includes planned parts arrival, scheduled mechanics, and predetermined costs.





Machine Information Center (MIC)

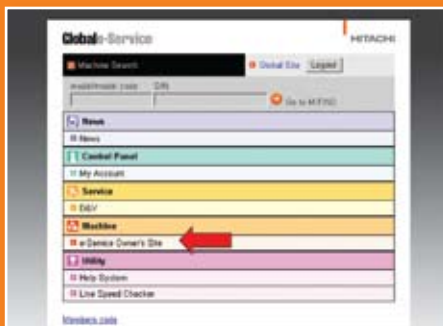
■ The MIC continuously records the performance of the engine and the hydraulic system. The record can then be downloaded to a PDA or computer.

Global e-Service.

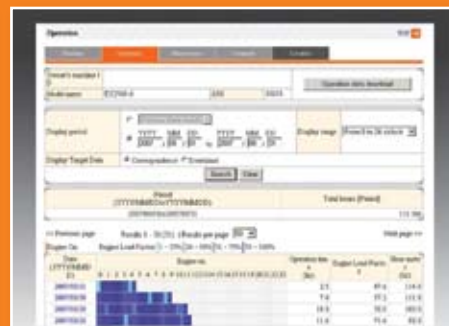
e-Service allows you to gather critical data and more via your Hitachi onboard MIC — through the Internet — without any expensive software.

The information available includes:

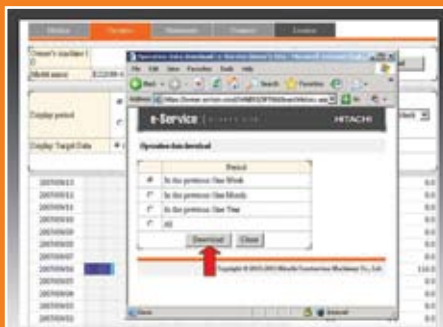
- Machine location through GPS and Google™ Maps
- Current machine hours
- Machine operation history
- Machine alarm and faults
- Maintenance history



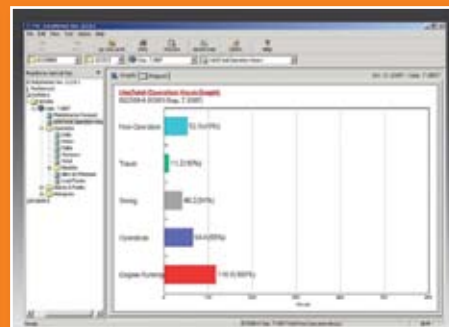
■ When you log in, a menu screen will give you selection options.



■ You can see how long and hard the machine has been operated on a daily basis.



■ You can download the MIC data for viewing in the Dataviewer program.



■ The EX-6 Series Excavators record four times more information than the EX-5 Series.



■ Track component hours for engine, pumps, and swing and travel motors for maintenance.



■ Google Maps show the unit's longitude and latitude.


As good or better than OEM at less cost.

High production requires scheduled maintenance on a predictive basis. Remanufacturing existing components is a Hitachi standard.

Critical components totally remanufactured to original spec, and guaranteed.

We embrace and encourage the quality remanufacturing of expensive components. Rarely are such units totally worn-out. Hitachi engineers provide all the technical information necessary to enable the Hitachi Reman Center and your local Hitachi dealer to remanufacture critical components.*


The Hitachi Reman Center, a totally owned in-house facility that is ISO 9002-certified, tests and remanufactures a wide range of hydraulic components, and provides a one-year, unlimited-hour (parts, labor, and collateral damage) warranty when installation is provided an authorized dealer. These components are then inventoried at multiple factory locations for prompt shipment.



Many Hitachi mining dealers have a significant individual investment in remanufacturing technology, equipment, and manpower. They offer more local swap-out programs covering higher-maintenance components such as cylinders and motors, as well as the most common engine components.

All Hitachi EX-6 Series Mining Excavators feature Cummins engines, partly because of the significant remanufacture programs embraced by Cummins, with the worldwide Genuine ReCon Parts and other supportive programs. These factory-remanufactured, tested, and warranted engine components provide guaranteed advantages to owners of Hitachi excavators via timely and efficient before-failure maintenance programs.

**All reman components will have the latest design upgrades.*



■ A fully computer-controlled operating test module tests components at maximum flows and pressures.



Support and trust.

Your local Hitachi dealer is dedicated to making your Hitachi mining excavator the productive machine it was built to be. To that end, each dealer has invested substantially to provide the mechanics, repair equipment, and service parts required for total maintenance, wherever your mine might be.

Through the Global e-Service program, you, your dealer, and Hitachi can ensure major preventive-maintenance component replacements — new or remanufactured — arrive in a timely manner no matter the remoteness of the mine.

Your satisfaction is our goal — your continued business is our intention.

Hitachi Reman Center.

This ISO 9002-certified center provides expert remanufacturing of hydraulic piston pumps, motors, cylinders, and rotary manifolds (center joints) for Hitachi mining excavators.



■ Upon disassembly, hydraulic pumps and motors are thoroughly inspected. Any part not meeting spec is discarded.

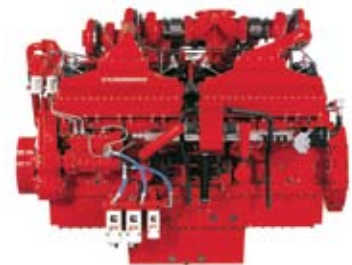


■ All cylinders are remanufactured to original specifications for future field repairs.



■ Center joints are remanufactured to the latest Hitachi design specification.

Cummins ReCon.



■ The Cummins engines are factory-remanufactured to meet new engine-performance specification.

We are as passionate as ever about this industry.
We are dedicated to building the best equipment in the
world, and we continue to support and improve them.



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