

EX8000



HYDRAULIC EXCAVATOR

Model Code : EX8000-6
Engine Rated Power : 2 x 1 450 kW (2 x 1 940 HP)
Operating Weight : Loading Shovel : 825 000 kg
Backhoe : 837 000 kg
Loading Shovel Bucket : Heaped : 40.0 m³
Backhoe Bucket : SAE, PCSA Heaped : 43.0 m³
CECE Heaped : 38.0 m³

Ultra Large Sized Production from the Hitachi Gigantic Excavators

The Hitachi Giants Yield Amazing Mining Production...
Setting a New Standard



Note: Photos in this brochure may include optional equipment.
They may also include custom-made options to meet specific user needs.

Giant-Sized Productivity Based on Hitachi's Theory of Evolution.

Each Hitachi generation listens to the needs of the work site and gives birth to an even-better new generation.

Bucket Passes to Dump Trucks

Dump Truck	EH4000ACII	EH5000AC-3
Nominal Payload	222 tonnes	296 tonnes
Loading Shovel 40.0 m ³	3	4 – 5
Backhoe 43.0 m ³	3	4

Powerful Engines— Ready for the task.

Time-proven twin Cummins diesel engines produces for handling the big excavation jobs.

Engine Rated Power.

- 2 x 1 450 kW (2 x 1 940 HP)



Emission Control Engines— Helping to protect our environment.

Conform to U.S. EPA Tier II emission regulations.

Efficient E-P Control— Adjusts power output to the work being performed.

Hitachi's computer-aided Engine-Pump Control (E-P Control) coaxes optimum efficiency from the engines and hydraulic pumps. This innovative system senses load demand and controls engine and pump output for maximum operating efficiency.

Flow-Assisting Circuit— Allows dynamic actions.

Using the meter-in valves, ample-capacity make-up valves, and flow-assisting pumps, the flow speed is increased in cylinders for dynamic actions. Especially, between dumping and digging.

Maximum Excavating Force.

Loading shovel

- **Crowding force** : 2 870 kN (293 000 kgf)
- **Breakout force** : 2 230 kN (227 000 kgf)

Backhoe

- **Bucket digging force**
 - ISO : 2 020 kN (206 000 kgf)
 - SAE,PCSA : 1 900 kN (193 400 kgf)
- **Arm crowd force**
 - ISO : 1 770 kN (180 700 kgf)
 - SAE,PCSA : 1 750 kN (178 300 kgf)

Larger Bucket Provides High Work Capacity.

- **Loading shovel bucket** : 40.0 m³
- **Backhoe bucket** : 43.0 m³



More Than Durable— Just Plain Tough

Built-in toughness means the Hitachi will continue to get giant-sized jobs done fast.

Rigid Box Design— Resists bending and twisting forces.

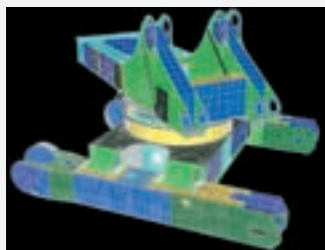
Computer-assisted analysis was used to check that the frame box can withstand heavy-duty excavation work.

Center Track Frame— More strength for this key area.

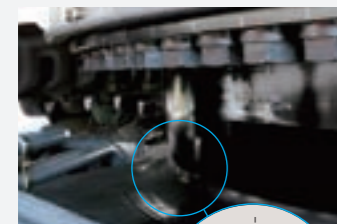
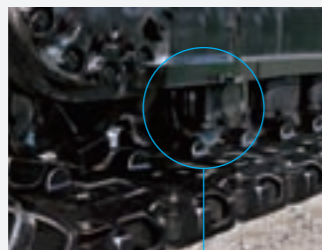
The center track frame of integral cast steel structure can avoid stress concentration and increase reliability.

Rugged Lower Rollers, Track Links and Drive Tumblers— Help to boost durability at rough tough work sites.

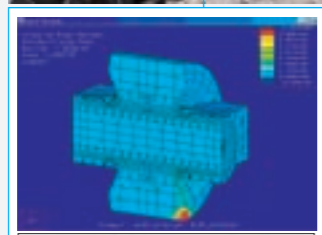
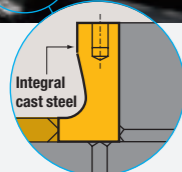
Lower rollers, track links and drive tumblers are newly designed to sustain the giant body for increased durability.



Rigid box design



Solid cast track frame



Rugged lower rollers, track links and drive tumblers

Constant Correct Track Tension— Nitrogen gas accumulators absorb abnormal track tension.

Travel is automatically stopped if accumulator pressure exceeds a preset level. At this time, alert information and countermeasures are indicated on the multi-display monitor.

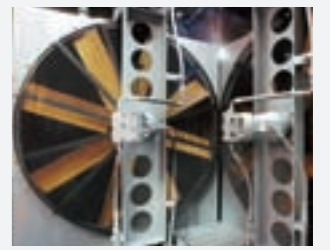
Flow-Retarding Control at Cylinder Stroke Ends— Improves controllability with longer service life.

This helps reduce impact at the stroke end to increase controllability and to extend service life. This mechanism is provided for arm/bucket roll-in and roll-out.



Strategically Positioned Oil Coolers— Help keep oil temperatures lower.

Three oil coolers are positioned far from the engine radiator for even better cooling potential.



Hydraulic oil cooling fan

High-Pressure Filters— Provide clean oil.

These filters are positioned down-line from the pumps to help prevent damage in the rare event of pump failure. Positioned for easy maintenance.



High pressure hydraulic oil filter

Designed to Offer Comfort and Intelligence

Comfortable operator space and simplified maintenance, backed by Hitachi technologies and experience.

High Visibility 9.0 Meter Cab Height— Providing a clear view of the work area.

Gives the operator a clear view, even when a large 300 tonnes class dump truck is being loaded.

Rugged Comfortable Cab— Protects the operator from falling objects.

Fluid filled elastic mounts help absorb vibration to provide durability and a comfortable ride. The OPG* top guard level II (ISO) is provided on the cab roof.

*Operator Protective Guard

Plenty of Utility Space— Allows full 24-hour operation.

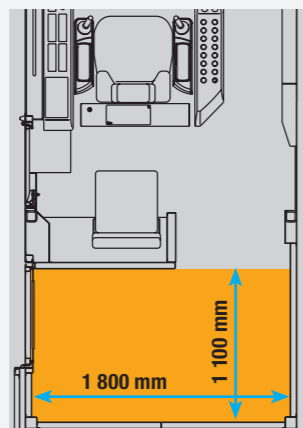
Plenty of utility space is provided behind the operator seat to hold a table, electronic oven, and refrigerator.

Efficient Cab Layout— All controls within natural reach of operator.

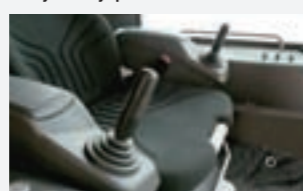
The ergonomic layout of the cab means the operator will do less stretching and reaching when operating the controls.

Electric Joystick Levers— Provides pleasant control with less fatigue.

Electric joystick control levers have a feather-touch allowing long periods of effortless operation. Its stroke is much shorter than that of hydraulic control.



Plenty of utility space



Electric joystick lever

Air Suspension Seat with Auto Operator Weight Adjuster.

The operator seat cushion can automatically be adjusted according to the operator weight. This is convenient for a machine operated by two or more operators.

Adjustable Sliding Cockpit— Moves to the best position for the operator.

The operator can adjust the position of the levers and the seat to custom fit his size and operating style.

Constant-Cab-Comfort Air Conditioner— Keeps the cab pressurized to keep out dust while maintaining comfortable temperature.

Intelligent Multi-Display Monitor provides machine data and operating status at a glance.

The operator can monitor machine conditions and operating status with a 10.5-inch color LCD. The controller provides instant fault diagnosis through all sensors, displaying warnings and countermeasures if failure arises.

Major Functions:

- Multiple meters, and alert symbols indication
- Alert/failure status, and countermeasures indication
- Snap-shot function that stores operating data, including five-minute operating data immediately before alerting, and succeeding one-minute data (temperatures, pressures, and more)
- Setting oil change intervals with alerting

Much more functions are provided to ease maintenance and servicing.



* Illustration shows a sample of the Emergency Switch.

Outside Cameras (Optional)— Enhances operator's visibility.

The operator can monitor around the machine, using four optional cameras to eliminate blind spots.

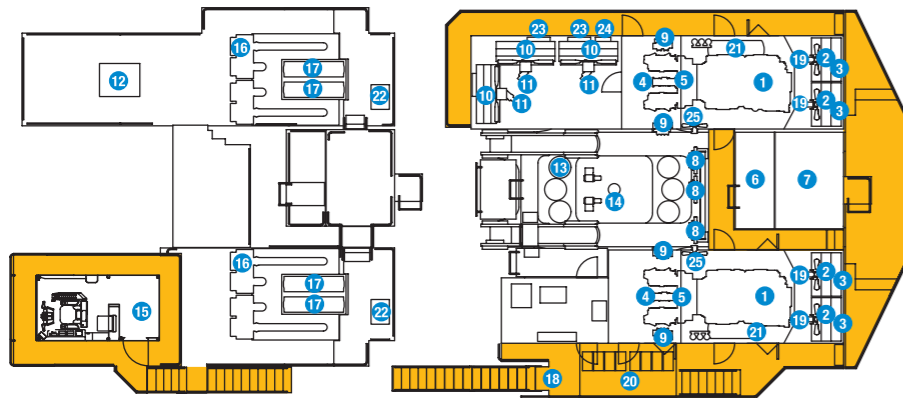


Designed to be Maintainable

Carefully engineered to allow full 24-hour operation.

Easier Access and Wide Open Service Area— Provides the space needed for quick and easy inspection and maintenance.

The wide fender, spacious counterweight top and central passage give easy access to major components for convenience of inspection and maintenance.



- | | | |
|-------------------------------|--|----------------------------------|
| 1 Engine x 2 | 10 Hydraulic Oil Cooler x 6 | 19 Fan Motor x 8 |
| 2 Engine Radiator x 4 | 11 Hydraulic Oil Cooling Fan Motor x 3 | 20 Battery Unit |
| 3 LTA Radiator x 4 | 12 Lubricator | 21 Reserve tank (engine oil) x 2 |
| 4 Hydraulic Pump x 16 | 13 Swing Device x 6 | 22 Reserve tank (coolant) x 2 |
| 5 Engine-Pump Bulkhead x 2 | 14 Center Joint | 23 Pump mission oil cooler x 2 |
| 6 Hydraulic Oil Tank | 15 Cab | 24 Fuel cooler x 2 |
| 7 Fuel Tank | 16 Air Filter x 4 | 25 Engine room Cooling Fan x 2 |
| 8 Control Valve x 6 | 17 Muffler x 4 | |
| 9 High-Pressure Strainer x 16 | 18 Folding Stairs | |



Folding Stairs with Wide Steps.

Folding stairs are designed for easy access to the machine for servicing and maintenance.



Easy Bucket Tooth Replacement— This area is designed to be easily maintained.

Innovative bucket tooth and shrouds are used to cut maintenance time.

Protective Engine and Pump Bulkhead— Contributes to lower heat and less potential for damage.

Steel barrier keeps these two areas independent.

Auto Lubrication System— Eliminates the need for manual lubrication.

This system automatically lubricates the front joint pins and swing circle. This eliminates cumbersome daily lubrication. A spare pump is provided standard for the auto lubrication system.

Low Maintenance Dust Ejector— Automatically expels dust from the air cleaner.

This is one less time-consuming task during routine maintenance.

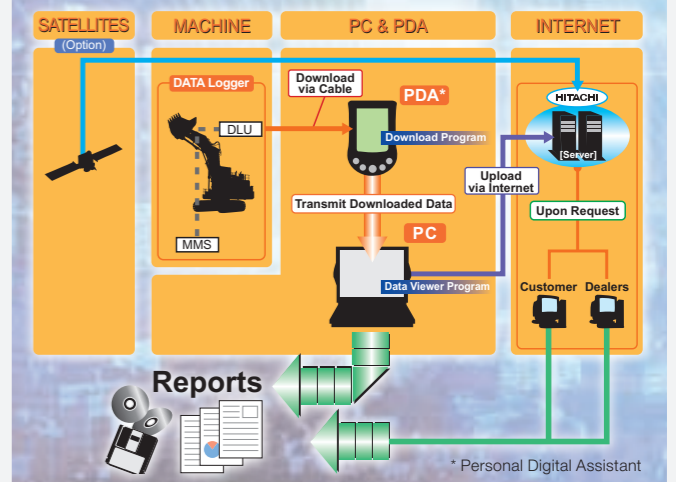
Contamination Sensor— Alerts the operator of excessive contaminants in the oil.

This system detects accumulated contaminants that could cause damage and alerts the operator before trouble occurs.



MIC Mining

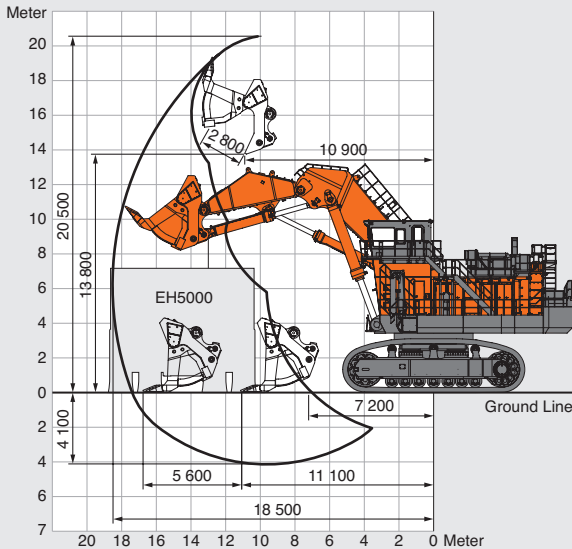
The MIC Mining comprises the DLU (Data-logging unit) on the machine. DLU continuously records performance of the engine and the hydraulic system. The record can be downloaded by PC and PDA*.



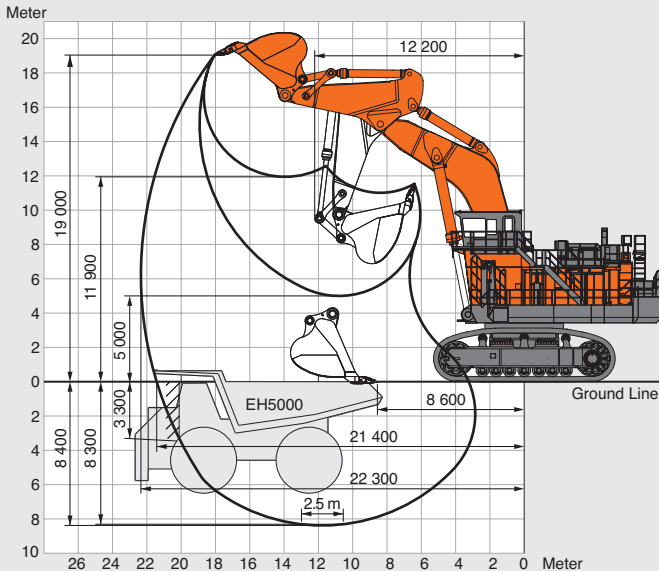
WORKING RANGES

Unit: mm

Loading Shovel

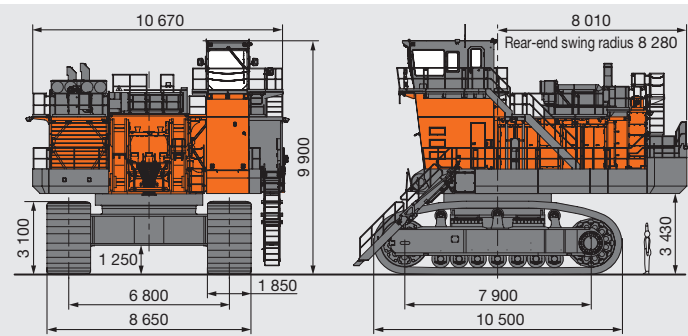


Backhoe



DIMENSIONS

Unit: mm



Before using a machine with a satellite communication system, please make sure that the satellite communication system complies with local regulations, safety standards and legal requirements. If not so, please make modifications accordingly.

ENGINE

Model..... Cummins QSKTA60-CE
 Rated power
 SAE J1995, gross ... 2 x 1 450 kW (2 x 1 940 HP) at 1 800 min⁻¹ (rpm)
 Net..... 2 x 1 450 kW (2 x 1 940 HP) at 1 800 min⁻¹ (rpm)
 Piston displacement.... 2 x 60 L
 Fuel tank capacity 14 900 L

HYDRAULIC SYSTEM

Main pumps 16 variable-displacement, axial piston pumps for front attachment, travel and swing
 Max. oil flow 16 x 500 L/min
 Swing speed 2 gear pump
 Max. oil flow 2 x 110 L/min

DIGGING FORCE

Loading Shovel

Crowding force 2 870 kN (293 000 kgf)
 Breakout force 2 230 kN (227 000 kgf)

Backhoe

Bucket digging force.. ISO : 2 020 kN (206 000 kgf)
 SAE,PCSA : 1 900 kN (193 400 kgf)
 Arm crowd force ISO : 1 770 kN (180 700 kgf)
 SAE,PCSA : 1 750 kN (178 300 kgf)

UPPERSTRUCTURE

Swing speed 3.2 min⁻¹ (rpm)

UNDERCARRIAGE

Travel speeds..... High: 0 to 2.0 km/h
 Low : 0 to 1.4 km/h
 Maximum traction force ... 3 000 kN (306 000 kgf)
 Gradeability 58 % (30 degree) max.

WEIGHTS AND GROUND PRESSURE

Loading Shovel

Equipped with 40.0 m³ (heaped) bottom dump bucket.

Shoe width	Operating weight	Ground pressure
1 850 mm	825 000 kg	248 kPa (2.53 kgf/cm ²)

Backhoe

Equipped with 11.5 m boom, 5.8 m arm, and 43.0 m³ (SAE,PCSA heaped) Bucket.

Shoe width	Operating weight	Ground pressure
1 850 mm	837 000 kg	252 kPa (2.57 kgf/cm ²)

ATTACHMENTS

Loading Shovel

Bucket Capacity (heaped)
 40.0 m³ : Materials density 1 800 kg/m³ or less

Backhoe

Bucket Capacity (SEA,PCSA heaped)
 43.0 m³ : Materials density 1 800 kg/m³ or less

The number of wear plates and their installation positions on the bucket of loading shovel or backhoe vary depending on applications at job site.

The installation of wear plates is indispensable.

Consult your nearest Hitachi or Hitachi dealer for details.

These specifications are subject to change without notice.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features.

Before use, read and understand the Operator's Manual for proper operation.