

EX-6 series

HITACHI

EX
3600



HYDRAULIC EXCAVATOR

- **Model Code** : EX3600-6
- **Engine Gross Power** : 1 450 kW (1 944 HP)
- **Operating Weight** : Loading Shovel : 362 000 kg
Backhoe : 359 000 kg
- **Loading Shovel Bucket** : Heaped : 21.0 m³
23.0 m³
- **Backhoe Bucket** : SAE,PCSA Heaped : 22.0 m³
CECE Heaped : 19.2 m³

Ultra Large Sized Production from the Hitachi Gigantic Excavators

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



SOLUTION GIANT

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.



Powerful Single Engine— Ready for the task.

Time-proven Cummins diesel engine produces a total of 1 450 kW (1 944 HP) for handling the big excavation jobs.

- 1 450 kW (1 944 HP)

Emission Control Engine— Helping to protect our environment.

Conforms 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 engine and hydraulic pumps. This innovative system senses load demand and controls engine and pump output for maximum operating efficiency.

Larger Bucket Provides High Work Capacity.

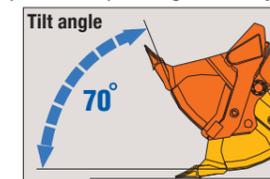
- Loading shovel bucket : 21.0 m³
- Backhoe bucket : 22.0 m³

Maximum Excavating Force.

- Loading shovel : Arm crowding force : 1 200 kN (122 000 kgf)
Breakout force : 1 050 kN (107 000 kgf)
- Backhoe : Arm crowd force : 951 kN (97 000 kgf)
Bucket digging force : 1 050 kN (107 000 kgf)

Large Bucket— Designed to enhance efficiency.

The large bucket has been shaped specifically to enhance scooping and loading operations. Its sharp tilt angle helps boost operating efficiency.



Productivity-Boosting Auto-Leveling Mechanism— One-lever leveling control.

This is another unique Hitachi function developed exclusively for more efficient leveling operations.

Bucket Passes to Dump Trucks

	HITACHI EH3500ACII
Nominal Payload	168 tonnes
Load Capacity (SAE 2:1 Heaped)	111m ³
Loading Shovel 21.0 m ³	5
Backhoe 22.0 m ³	5

Note: Photos in this catalog may include optional equipment.

SOLUTION GIANT

More Than Durable — Just Plain Tough

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



Strategically Positioned Oil Coolers—
Help to keep oil temperatures



Four oil coolers are used for optimal cooling efficiency. They are positioned far from the engine radiator for even better cooling potential.

High-Mounted Compact Travel Motors
and **Optional Travel Motor Guard—** Help
to boost durability at rugged work sites.

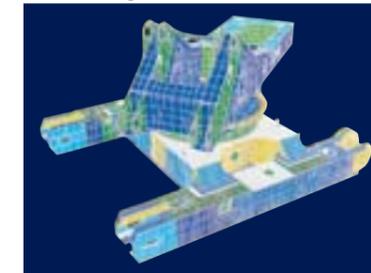


This design helps protect the travel motors from damage by rocks.

Rugged Track Links— Shoes include
roller guides for extended service life.



Rigid Box Design— Resists bending
and twisting forces.

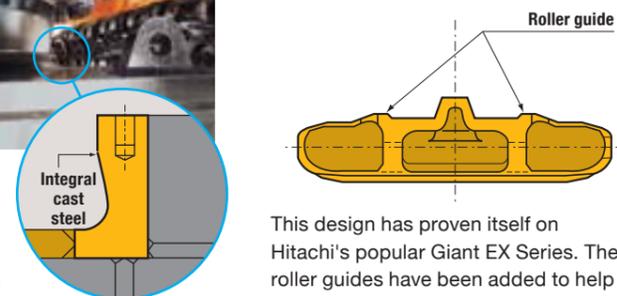


Computer-assisted analysis was used to check that the frame box can withstand heavy-duty excavation work.

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.



This design has proven itself on Hitachi's popular Giant EX Series. The roller guides have been added to help extend service life.

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

Helps prevent abnormal track tension from causing damage. Travel is automatically stopped if accumulator pressure exceeds a preset level.



SOLUTION GIANT

Designed to Offer Comfort and Intelligence

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

High Visibility 6.83 Meter Cab Height— Providing a clear view of the work area.

Gives the operator a clear view, even when a large 190 tonnes class dump truck is being loaded. This high height and forward-sloping cab provides a view that boosts productivity.

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

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. This adds up to less operator fatigue and greater operating efficiency.

Note: This picture shows optional carpet floor mats.

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.

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 operating safety.

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



SOLUTION GIANT

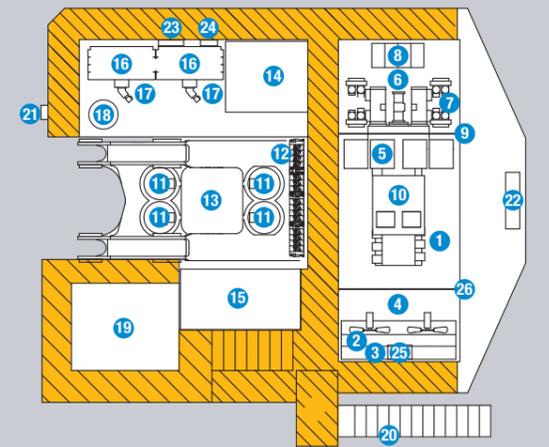
Designed to be Maintenable

Carefully engineered to allow full 24-hour operation.



Easy Access and Maintenance— Easy access speeds inspections and maintenance.

- | | |
|------------------------------|--|
| 1 Engine | 15 Fuel Tank |
| 2 Engine Radiator | 16 Hydraulic Oil Cooler x 4 |
| 3 LTA Radiator | 17 Hydraulic Oil Cooling Fan Motor x 2 |
| 4 Fan Motor x 4 | 18 Lubricator |
| 5 Air Filter x 4 | 19 Cab |
| 6 Hydraulic Pump x 8 | 20 Folding Stairs |
| 7 High-Pressure Strainer x 8 | 21 Ladder |
| 8 Battery Unit | 22 Reserve tank (engine oil) |
| 9 Engine-Pump Bulkhead | 23 Pump Transmission oil cooler |
| 10 Muffler | 24 Fuel cooler |
| 11 Swing Device x 4 | 25 Reserve tank (coolant) |
| 12 Control Valve x 4 | 26 Engine-Radiator Bulkhead |
| 13 Center Joint | |
| 14 Hydraulic Oil Tank | |



Multipurpose Counterweight— Easier access for maintenance.



A walkway around the entire counterweight provides easy access to key rear areas. This means faster and safer inspection and maintenance.

Folding Stairs with Wide Steps.



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

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



This area is conveniently located at the center of the body and provides access to the engine as well as the hydraulic and electrical systems.

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.

Easy-to-Replace Grease Drum Can— Designed to provide quick and easy grease drum can changes.

The compartment floor slides down to lower a drum for simple, easy replacement.



Convenient Centralized Filter System— Designed to make filter inspection and maintenance easier.

Centralized position means that inspection and maintenance can be performed quickly and easily.



The Centralized Lubrication System: Fast Filling System

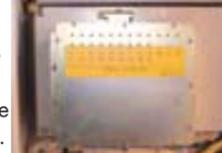


Low Maintenance Dust Ejector— Automatically expels dust from the air cleaner.

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

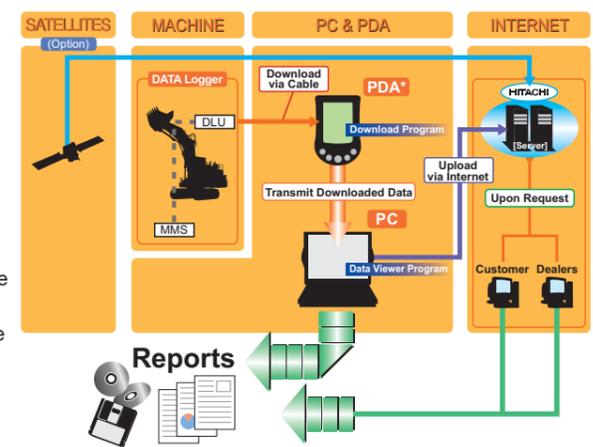
Contamination sensor— Alerts the opera- tor of excessive contaminants in the oil.

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



MIC Mining

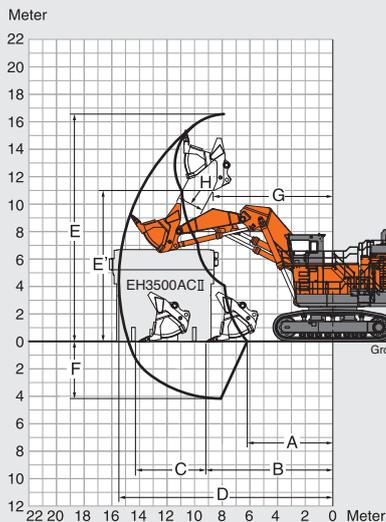
The MIC Mining comprises the DLU (Data-logging unit) on the machine DLU continuously records performance of the engine and the hydraulic system. The record can be download by PC and PDA*.



* Personal Digital Assistant

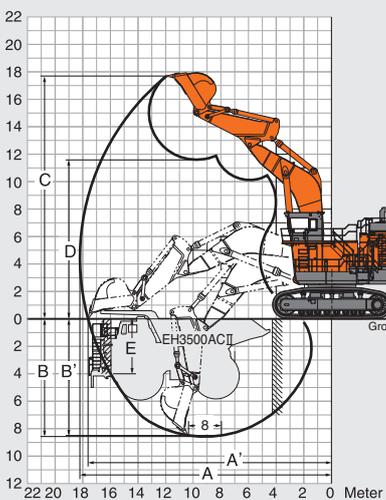
SPECIFICATIONS

WORKING RANGES



Loading Shovel

- Bucket capacity 21.0m³
- A Min. digging distance 6 190 mm
- B Min. level crowding distance 9 180 mm
- C Level crowding distance 5 060 mm
- D Max. digging reach 15 470 mm
- E Max. cutting height 16 560 mm
- E' Max. dumping height 10 990 mm
- F Max. digging depth 4 160 mm
- G Working radius at max. dumping height 8 650 mm
- H Max. bucket opening width 1 950 mm
- Arm crowding force 1 200 kN (122 000 kgf)
- Breakout force 1 050 kN (107 000 kgf)

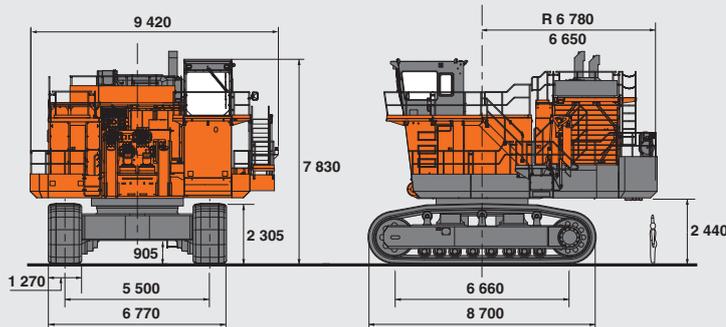


Backhoe

- BE-boom length 9.6 m
- BE-arm length 4.5 m
- Bucket capacity 22.0m³
- A Max. digging reach 18 190 mm
- A' Max. digging reach (on ground) 17 610 mm
- B Max. digging depth 8 580 mm
- B' Max. digging depth (8' level) 8 490 mm
- C Max. cutting height 17 690 mm
- D Max. dumping height 11 590 mm
- E Max. vertical wall 4 060 mm
- Bucket digging force ISO 1 050 kN (107 000 kgf)
- SAE: PCSA 932 kN (95 000 kgf)
- Arm crowd force ISO 951 kN (97 000 kgf)
- SAE: PCSA 922 kN (94 000 kgf)

DIMENSIONS

Unit: mm



ENGINE

- Model..... Cummins QSKTA60-CE
- Rated power
 - SAE J1995, gross ... 1 450 kW (1 944 HP) at 1 800 min⁻¹ (rpm)
 - Net..... 1 450 kW (1 944 HP) at 1 800 min⁻¹ (rpm)
- Piston displacement.... 60.0 L
- Fuel tank capacity 7 450 L

HYDRAULIC SYSTEM

- Main pumps..... 8 variable-displacement,axial piston pumps for front attachment,travel and swing
- Pressure setting 29.4 MPa (300 kgf/cm²)
- Max. oil flow 8 x 500 L/min

UPPERSTRUCTURE

- Swing speed 3.2 min⁻¹ (rpm)

UNDERCARRIAGE

- Travel speeds High: 0 to 2.2 km/h
Low : 0 to 1.7 km/h
- Maximum traction force... 1 760 kN (179 500 kgf)
- Gradeability 58 % (30 degree) max.

WEIGHTS AND GROUND PRESSURE

Loading Shovel

Equipped with 21.0 m³ (heaped) bottom dump bucket

Shoe width	Operating weight	Ground pressure
1 270 mm	362 000 kg	190 kPa (1.94 kgf/cm ²)

Backhoe

Equipped with 9.6 m BE-boom, 4.5 m BE-arm and 22.0 m³ (SAE,PCSA heaped) bucket

Shoe width	Operating weight	Ground pressure
1 270 mm	359 000 kg	188 kPa (1.92 kgf/cm ²)

ATTACHMENTS

Loading Shovel

Bucket Capacity (heaped)

- 21.0 m³ : Materials density 1 800 kg/m³ or less
- 23.0 m³ : Materials density 1 600 kg/m³ or less

Backhoe

Bucket Capacity (SAE,PCSA heaped)

- 22.0 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.