

EX-6 series

HITACHI

EX

5600



## HYDRAULIC EXCAVATOR

- **Model Code** : EX5600-6
- **Engine Gross Power** : 2 x 1 119 kW (2 x 1 500 HP)
- **Operating Weight** : Loading Shovel : 533 000 kg  
Backhoe : 537 000 kg
- **Loading Shovel Bucket** : Heaped : 27.0 — 29.0 m<sup>3</sup>
- **Backhoe Bucket** : SAE, PCSA Heaped : 34.0 m<sup>3</sup>  
CECE Heaped : 30.0 m<sup>3</sup>

# Tremendous Production with the Gigantic Excavators from Hitachi.

The Hitachi Giants Keep on Progressing. The Buckets Get Bigger... Along with Enhanced Reliability and Durability. Massive Production and Power on Hand.



**Engine Gross Power :** 2 x 1 119 kW (1 500 HP)  
2 x 1 044 kW (1 400 HP) EX5500-6

**Bucket Capacity :** 34.0 m<sup>3</sup>  
Backhoe : 29.0 m<sup>3</sup> EX5500-6 Loading Shovel : 27.0 m<sup>3</sup> EX5500-6 29.0 m<sup>3</sup>

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

# 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 Engines— Ready for the task.

Time-proven Cummins diesel engines produce a total of 2 X 1 119 kW (2 X 1 500 HP) for handling the big excavation jobs.

- 2 X 1 119 kW (2 X 1 500 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.

### Larger Bucket Provides High Work Capacity.

- Loading shovel bucket : 29.0 m<sup>3</sup>
- Backhoe bucket : 34.0 m<sup>3</sup>

### Maximum Excavating Force.

- Loading shovel : Arm crowding force on ground : 1 520 kN (155 000 kgf)  
Bucket digging force : 1 590 kN (162 000 kgf)
- Backhoe : Arm crowd force (ISO) : 1 300 kN (133 000 kgf)  
(SAE : PCSA) : 1 280 kN (131 000 kgf)  
Bucket digging force (ISO) : 1 480 kN (151 000 kgf)  
(SAE : PCSA) : 1 370 kN (140 000 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	HITACHI EH4000ACII	HITACHI EH5000ACII
Nominal Payload	168 tonnes	222 tonnes	290 tonnes
Backhoe 34.0 m <sup>3</sup>	3	4	5
Loading Shovel 29.0 m <sup>3</sup>	3 or 4	4 or 5	6

34.0 m<sup>3</sup> backhoe bucket is best matched with 220 tonnes class dump trucks. 29.0 m<sup>3</sup> loading shovel bucket brings higher loading efficiency.

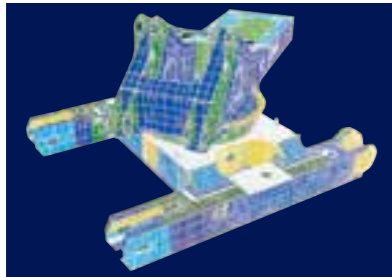


# SOLUTION GIANT

## More Than Durable — Just Plain Tough

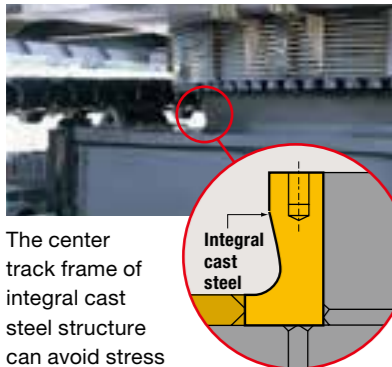
Built-in toughness means the Hitachi will continue to get giant-sized jobs done fast.

**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.

**Strategically Positioned Oil Coolers—** Help keep oil temperatures



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

**Improved Radiators and Oil Coolers**

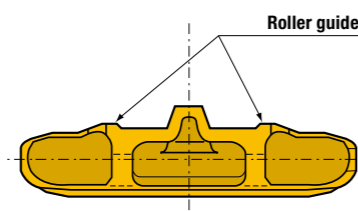
Materials of radiators and oil coolers are changed for higher heat dissipation than the conventional model.

**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.



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 7.64 Meter Cab Height— Providing a clear view of the work area.

Gives the operator a clear view, even when a large 220 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.

### 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

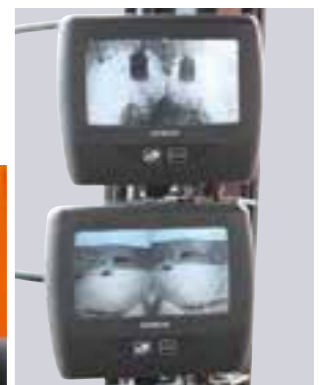


\* Illustration shows a sample of the Emergency Switch.

Much more functions are provided to ease maintenance and servicing.

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

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



# SOLUTION GIANT

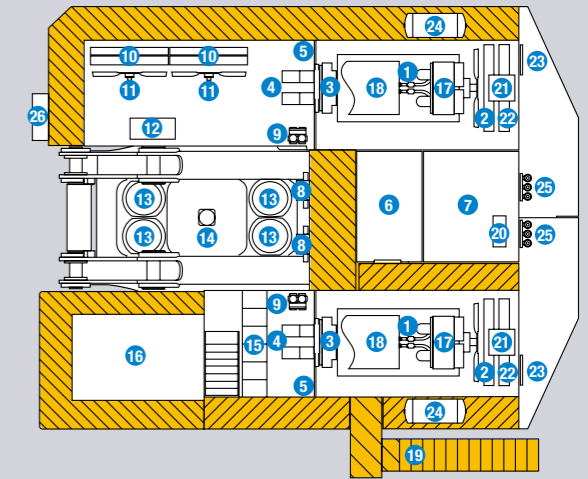
**Designed to be  
Maintenable**

Carefully engineered  
to allow full 24-hour  
operation.



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

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



### Counterweight with walkway— 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 engines 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

### 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.

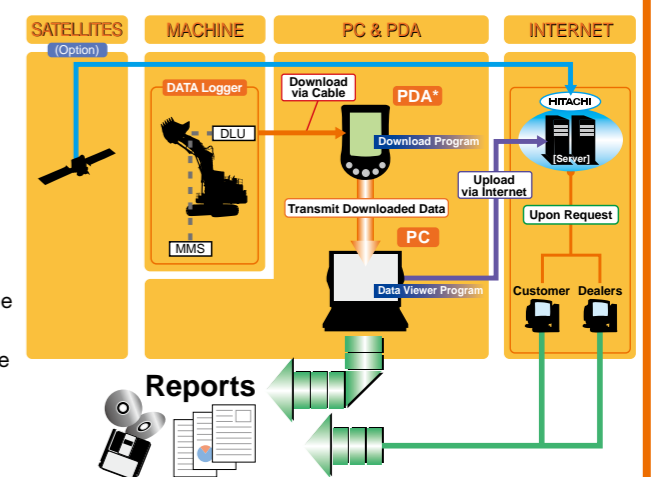
### Contamination sensor— Alerts the operator of excessive contaminants in the oil.

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



### MIC Mining

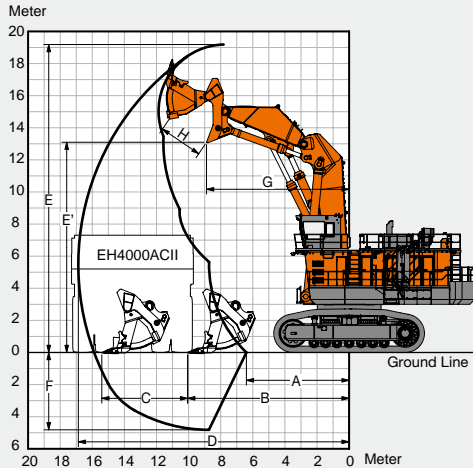
The MIC Mining comprises the DLU (Data-logging unit) on the machine DLU continuously records performance of the engine and the hydraulic system. The record can be download by PC and PDA\*.



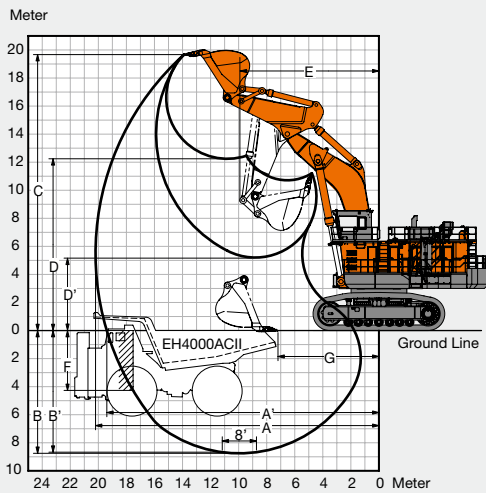
\* Personal Digital Assistant

# SPECIFICATIONS

## WORKING RANGES



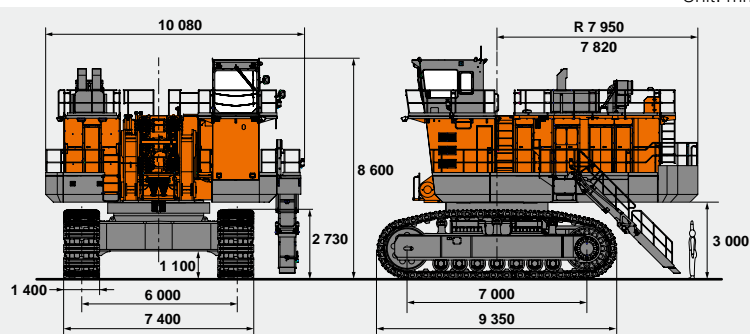
**Loading Shovel**  
 Bucket capacity 27.0 m<sup>3</sup> / 29.0m<sup>3</sup>  
 A Min. digging distance  
 6 150 mm / 6 400 mm  
 B Min. level crowding distance  
 9 800 mm / 10 050 mm  
 C Level crowding distance  
 5 550 mm / 5 350 mm  
 D Max. digging reach  
 16 600 mm / 17 000 mm  
 E Max. cutting height  
 18 900 mm / 19 200 mm  
 E' Max. dumping height  
 13 100 mm / 13 100 mm  
 F Max. digging depth  
 4 550 mm / 4 800 mm  
 G Working radius at max.  
 dumping height  
 8 900 mm / 8 900 mm  
 H Max. bucket opening width  
 2 700 mm / 2 700 mm  
 Arm crowding force on ground  
 1 570 kN (160 000 kgf) /  
 1 520 kN (155 000 kgf)  
 Bucket digging force  
 1 710 kN (174 000 kgf) /  
 1 590 kN (162 000 kgf)



**Backhoe**  
 BE-boom length 10.1 m  
 BE-arm length 5.0 m  
 Bucket capacity 34.0 m<sup>3</sup>  
 A Max. digging reach  
 20 200 mm  
 A' Max. digging reach (on ground)  
 19 400 mm  
 B Max. digging depth  
 8 800 mm  
 B' Max. digging depth (8' level)  
 8 700 mm  
 C Max. cutting height  
 19 700 mm  
 D Max. dumping height  
 12 200 mm  
 D' Min. dumping height  
 5 200 mm  
 E Min. swing radius  
 9 900 mm  
 F Max. vertical wall  
 4 300 mm  
 G Min. level crowding distance  
 7 200 mm  
 Bucket digging force  
 ISO 1 480 kN (151 000 kgf)  
 SAE: PCSA 1 370 kN (140 000 kgf)  
 Arm crowd force  
 ISO 1 300 kN (133 000 kgf)  
 SAE: PCSA 1 280 kN (131 000 kgf)

## DIMENSIONS

Unit: mm



## ENGINE

Model..... Cummins QSKTA50-CE  
 Emission Certification.. U.S. EPA Tier 2  
 Rated power  
 SAE J1995, gross ... 2 x 1 119 kW (2 x 1 500 HP)  
 at 1 800 min<sup>-1</sup> (rpm)  
 Net..... 2 x 1 069 kW (2 x 1 434 HP)  
 at 1 800 min<sup>-1</sup> (rpm)  
 Piston displacement.... 2 x 50 L  
 Fuel tank capacity ..... 11 300 L

## HYDRAULIC SYSTEM

Main pumps..... 12 variable-displacement, axial piston  
 pumps for front attachment, travel and  
 swing  
 Pressure setting ..... 29.4 MPa (300 kgf/cm<sup>2</sup>)  
 Max. oil flow ..... 8 x 375 L/min, 4 x 425 L/min

## UPPERSTRUCTURE

Swing speed ..... 3.3 min<sup>-1</sup> (rpm)

## UNDERCARRIAGE

Travel speeds..... High: 0 to 2.3 km/h  
 Low : 0 to 1.6 km/h  
 Maximum traction force... 2 230 kN (227 000 kgf)  
 Gradeability ..... 58 % (30 degree) max.

## WEIGHTS AND GROUND PRESSURE

### Loading Shovel

Equipped with 29.0 m<sup>3</sup> (heaped) bottom dump bucket

Shoe width	Operating weight	Ground pressure
1 400 mm	533 000 kg	234 kPa (2.39 kgf/cm <sup>2</sup> )

### Backhoe

Equipped with 10.1 m BE-boom, 5.0 m BE-arm and 34.0 m<sup>3</sup> (SAE, PCSA heaped) bucket

Shoe width	Operating weight	Ground pressure
1 400 mm	537 000 kg	236 kPa (2.41 kgf/cm <sup>2</sup> )

## ATTACHMENTS

### Loading Shovel

#### Bucket Capacity (heaped)

27.0 m<sup>3</sup> : Materials density 1 900 kg/m<sup>3</sup> or less  
 29.0 m<sup>3</sup> : Materials density 1 800 kg/m<sup>3</sup> or less

### Backhoe

#### Bucket Capacity (SAE, PCSA heaped)

34.0 m<sup>3</sup> : Materials density 1 800 kg/m<sup>3</sup> 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.