HITACHI

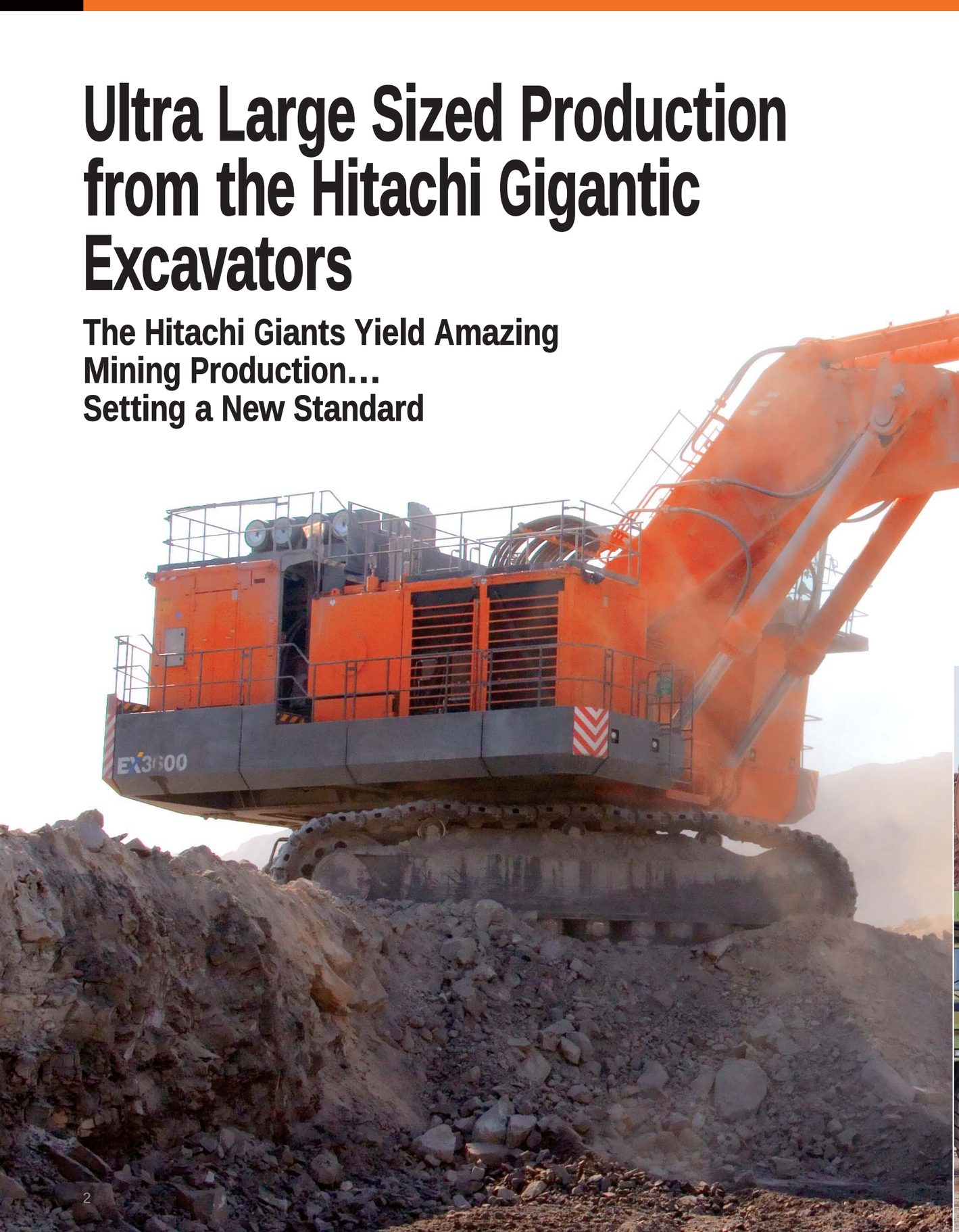
EX 3600

HYDRAULIC EXCAVATOR

- **Model Code** : EX3600-6
- **Engine Gross Power** : 1 450 kW (1 944 HP)
- **Operating Weight** : Loading Shovel : 361 000 kg
  Backhoe : 359 000 kg
- **Loading Shovel Bucket** : PCSA Heaped : 21.0 m^3
  23.0 m^3
- **Backhoe Bucket** : PCSA Heaped : 22.0 m^3
  CECE Heaped : 19.2 m^3

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.

Bucket Passes to Dump Trucks

	HITACHI EH3500
Nominal Payload	173 ton
Load Capacity (SAE 2:1 Heaped)	115.1m³
Loading Shovel 21.0 m³	5 or 6
Backhoe 22.0 m³	5 or 6

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.

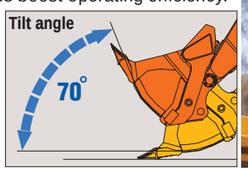
- **Loading shovel bucket : 21.0 m³**
- **Backhoe bucket : 22.0 m³**

Maximum Excavating Force.

- **Loading shovel : Arm crowding force : 1 200 kN (122 000 kgf)**
  Breakout force : 1 130 kN (115 000 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.

Note: Photos in this catalog may include optional equipment.

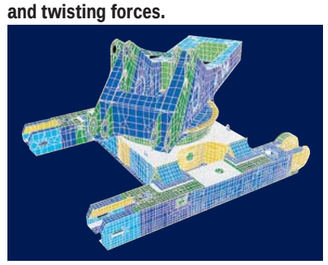
SOLUTION

GIANT

More Than Durable — Just Plain Tough

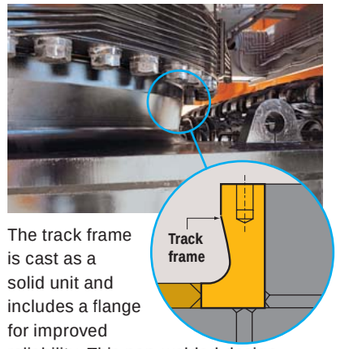
Built-in toughness means the Hitachi will continue to get giant-sized jobs done fast.

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.

Solid Cast Track Frame— More strength for this key area.

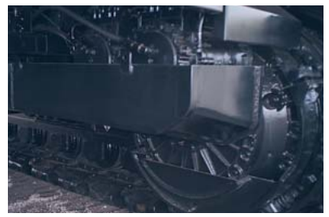


The track frame is cast as a solid unit and includes a flange for improved reliability. This non-welded design is used exclusively on large Hitachi models.

Strategically Positioned Oil Coolers— Helps keep oil temperatures

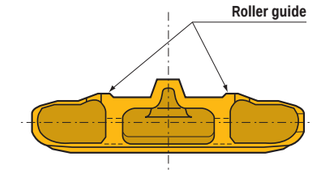
Four oil coolers are used for optimal cooling efficiency. They are positioned far from the engine radiator for even better cooling potential.

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.

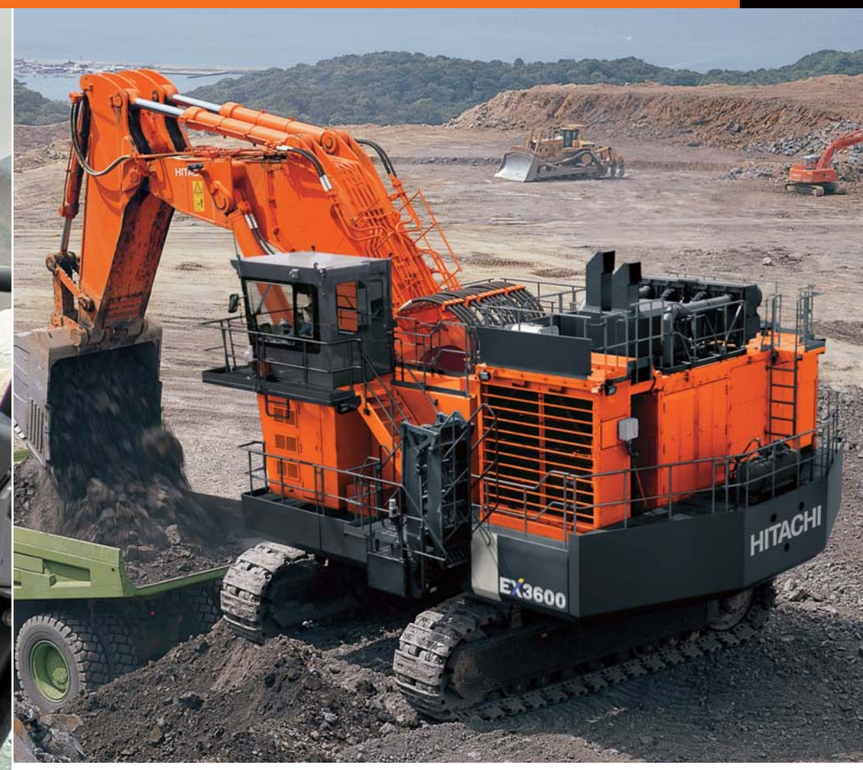
Rugged Track Links— Shoes include roller guides for extended service life.



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 200 US ton 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 top guard, conforming to OPG* 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.

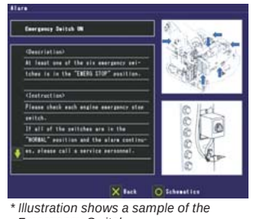
Intelligent Multi-Display Monitor provides machine data and operating status at a glance.

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 fiveminute operating data immediately before alerting, and succeeding one-minute data (temperatures, pressures, and more)
- Setting oil change intervals with alerting

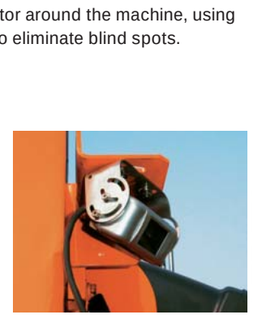
Much more functions are provided to ease maintenance and servicing.



** Illustration shows a sample of the Emergency Switch.*

Outside Cameras (Option)— Enhances operating safety.

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



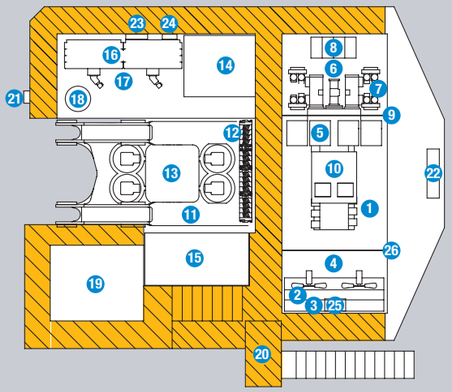
SOLUTION GIANT

Designed to be Maintenable

Carefully engineered to allow full 24-hour operation.

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

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



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 is 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.

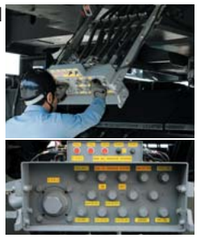
Easy-to-Replace Grease Drum Can— Designed to provide quick and easy grease drum can changes.

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

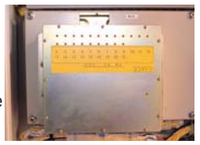


Low Maintenance Dust Ejector— Automatically expels dust from the air cleaner.

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

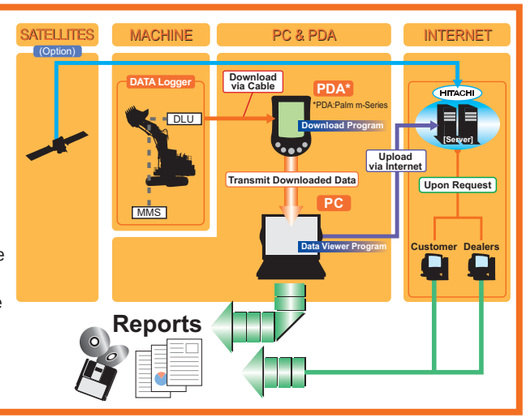
Contamination sensor— Alerts the operator of excessive contaminants in the oil.

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



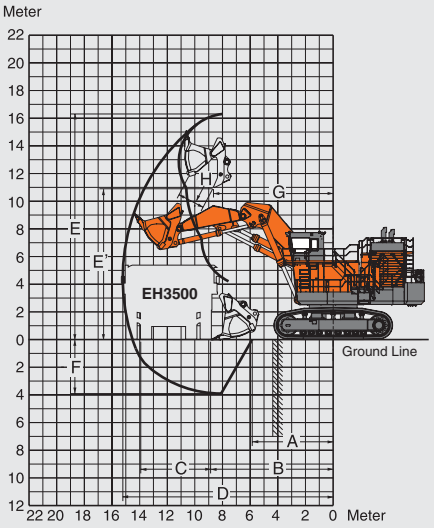
MIC Mining

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.



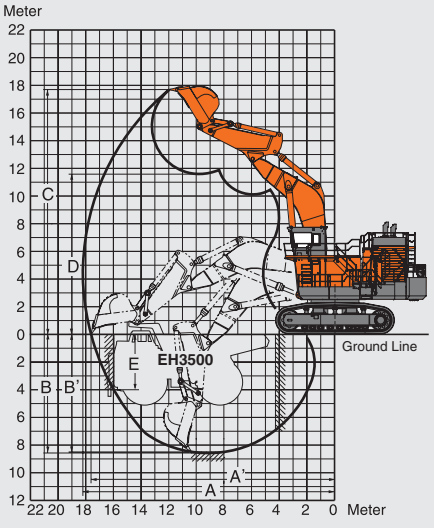
SPECIFICATIONS

WORKING RANGES



Loading Shovel

A Min. digging distance
5 850 mm
B Min. level crowding distance
8 870 mm
C Level crowding distance
5 050 mm
D Max. digging reach
15 220 mm
E Max. cutting height
16 300 mm
E' Max. dumping height
10 990 mm
F Max. digging depth
3 910 mm
G Working radius at max. dumping height
8 650 mm
H Max. bucket opening width
1 950 mm
Arm crowding force (SAE)
1 200 kN (122 000 kgf)
Breakout force (SAE)
1 130 kN (115 000 kgf)

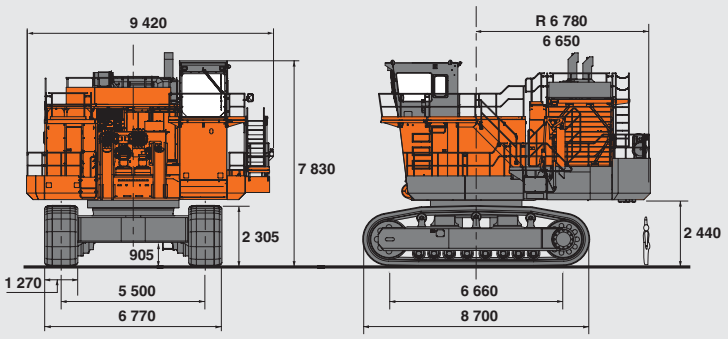


Backhoe

9.6 m BE-boom
4.5 m BE-arm
A Max. digging reach
18 190 mm
A' Max. digging reach (on ground)
17 600 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	
DIN 6271,net	1 450 kW (1 968 PS) at 1 800 min^{-1} (rpm)
SAE J1995, gross	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/cm^2)
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)
Grade ability	60 % (30 degree) max.

WEIGHTS AND GROUND PRESSURE

Loading Shovel

Equipped with 21.0 m^3 (PCSA heaped) bottom dump bucket

Shoe width	Operating weight	Ground pressure
1 270 mm	361 000 kg	189 kPa (1.93 kgf/cm^2)

Backhoe

Equipped with 9.6 m BE-boom, 4.5 m BE-arm and 22.0 m^3 (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 (PCSA 2:1 heaped)

21.0 m^3 : Materials density 1 800 kg/m^3
23.0 m^3 : Materials density 1 600 kg/m^3

Backhoe

Bucket Capacity (PCSA 1:1 heaped)

22.0 m^3 : Materials density 1 800 kg/m^3

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 datails.

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.

Hitachi Construction Machinery
www.hitachi-c-m.com

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