

EX2500

HITACHI

# EX2500

■ Engine Gross Power : 1 007 kW (1 350 hp)

■ Operating Weight

Loading Shovel : 242 000 kg (533 500 lb) Diesel Engine

241 500 kg (532 400 lb) Electric Motor

Backhoe : 239 000 kg (526 900 lb) Diesel Engine

■ Loading Shovel Bucket

PCSA Heaped : 15.0 m<sup>3</sup> (19.6 yd<sup>3</sup>)

16.5 m<sup>3</sup> (21.6 yd<sup>3</sup>)

■ Backhoe Bucket

PCSA Heaped : 15.0 m<sup>3</sup> (19.6 yd<sup>3</sup>)

CECE Heaped : 13.2 m<sup>3</sup> (17.3 yd<sup>3</sup>)

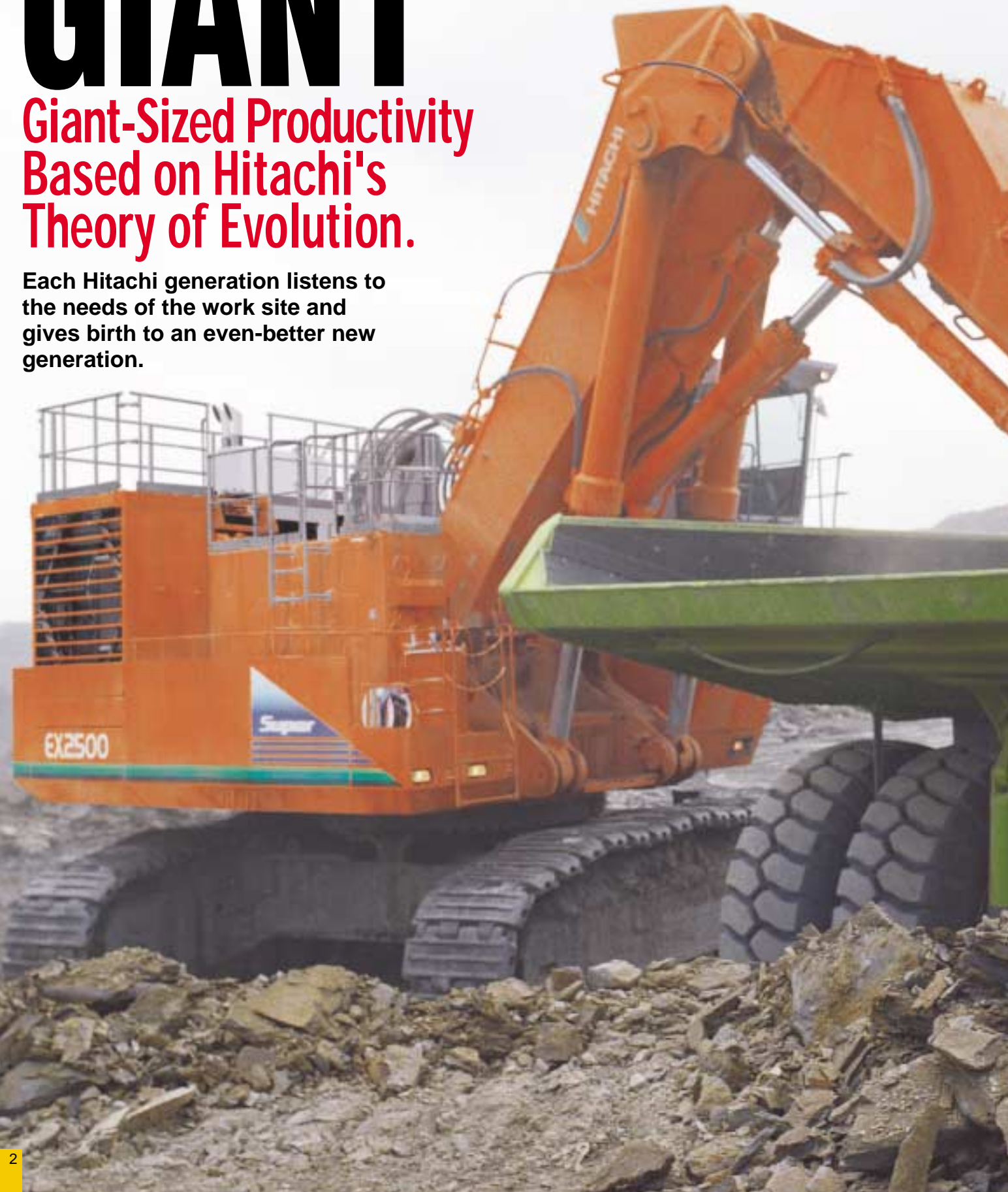


# SOLUTION GIANT



**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 EH1700	HITACHI EH3000
Maximum Payload	108.4 US ton	173.0 US ton
Body Capacity <sup>(SAE 2:1 Heaped)</sup>	60.3m <sup>3</sup> (78.8yd <sup>3</sup> )	101.9m <sup>3</sup> (133.3yd <sup>3</sup> )
Loading Shovel 15.0 m <sup>3</sup> (19.6 yd <sup>3</sup> )	4	6 or 7
Backhoe 15.0 m <sup>3</sup> (19.6 yd <sup>3</sup> )	4	6 or 7



## Powerful Single Engine — Ready for the task.

Time-proven Cummins diesel engine produces a total of 1 007kW (1 350hp) for handling the big excavation jobs.

**1 007kW (1 350 hp)**

## High-Powered Electric Motor

The Hitachi 860 kW (1 150 hp) electric motor yields high productivity yet keep the environment clean.

## Emission Control Engine — Helping to protect our environment.

Conforms to U.S. EPA Tier I 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:

**15.0m<sup>3</sup> (19.6 yd<sup>3</sup>)**

● Backhoe bucket:

**15.0m<sup>3</sup> (19.6 yd<sup>3</sup>)**

## Maximum Excavating Force.

● Loading shovel:

Arm crowding force

**918 kN**  
(93 600 kgf, 206 400 lbf)

Breakout force

**843 kN**  
(86 000 kgf, 189 600 lbf)

● Backhoe:

Arm crowd force

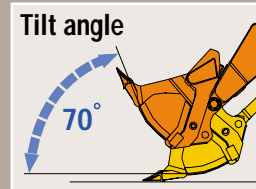
**762 kN**  
(77 800 kgf, 171 500 lbf)

Bucket digging force

**832 kN**  
(84 800 kgf, 187 000 lbf)

## 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.

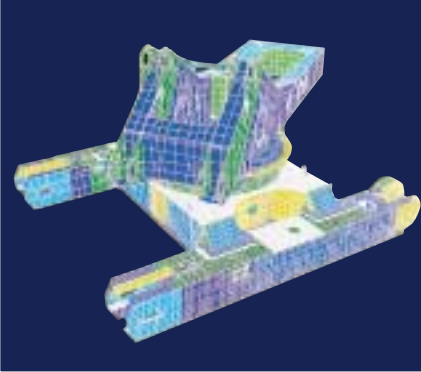
*Note: Photos in this catalog may include optional equipment. They may also include custom-made options to meet specific user needs.*

# SOLUTION GIANT

More Than Durable—  
Just Plain Tough

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



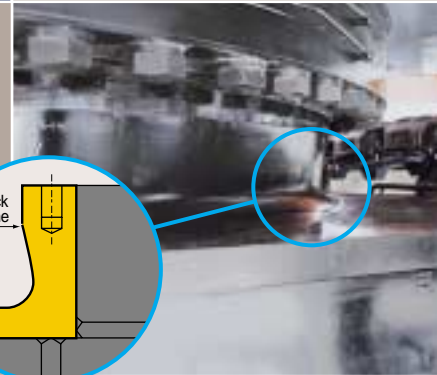
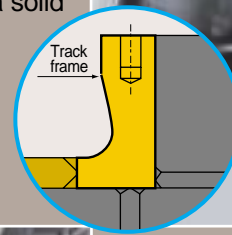


**Rigid Box Design — Resists bending and twisting forces.**

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 lower.**

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



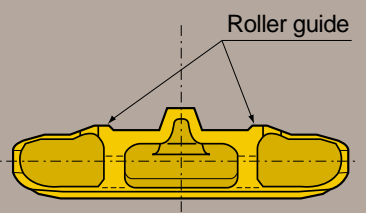
**High-Mounted Compact Travel Motors and Optional Travel Motor Guard — Help to boost durability at rugged work sites.**

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

## Giant-Sized Comfort & Easy Maintenance

The entire machine is designed to provide comfort to the operator and to make maintenance easier for the mechanic.

### High Visibility 6.4 Meter (21' 0") Cab Height — Providing a good view of the work area.

Gives the operator a good 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.

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

### Easy-to-Monitor Curved Instrument Panel — Provides at-a-glance monitoring of operating status.

Positioned so that the operator can continually monitor the status of key functions during operation. All, buttons and instruments are easy to see and operate.

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

### 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.

### Comfortable Cab — Comfort for reducing operator fatigue.

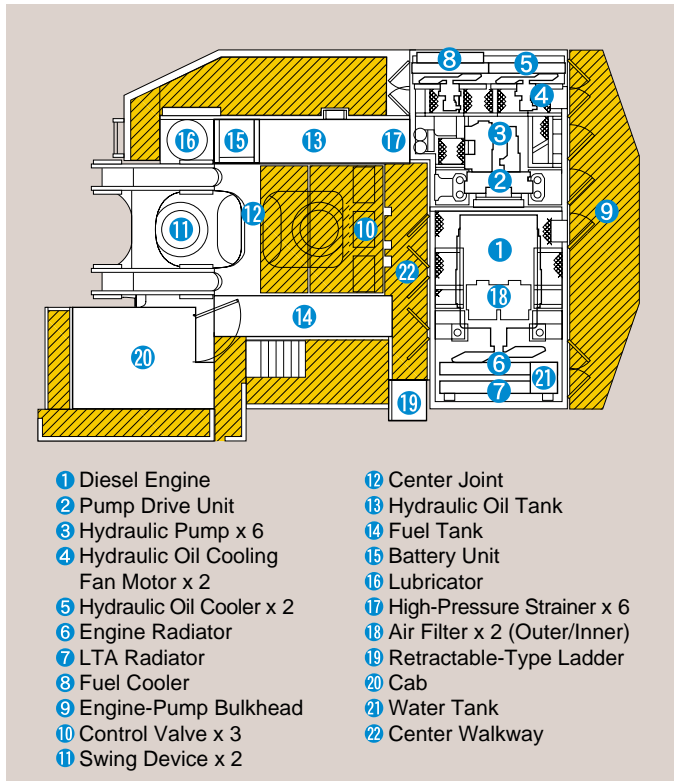
Fluid-filled elastic mounts help absorb vibration to provide durability and comfortable ride.

The sturdy cab, with the top guard conforming to OPG\* Level II (ISO), helps protect the operator from falling object.

\* Operator Protective Guard



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



**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.



**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.

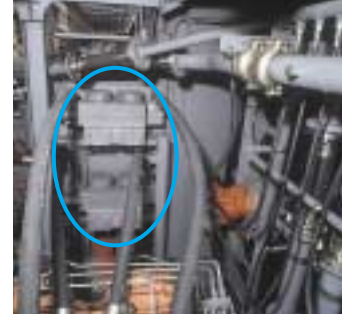


**Easy-to-Replace Grease Drum Can — Designed to provide quick and easy grease drum can changes.**

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 (option)**



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

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

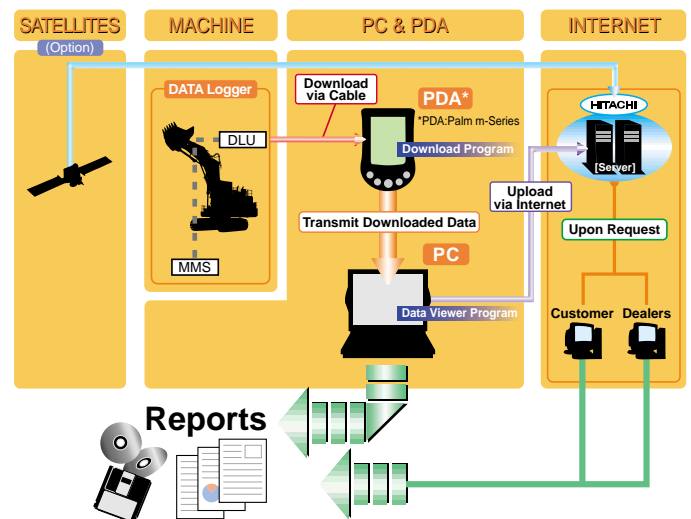
**Contamination Sensor — Alerts the operator of excessive contaminants in the oil.**



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

**MIC Mining**

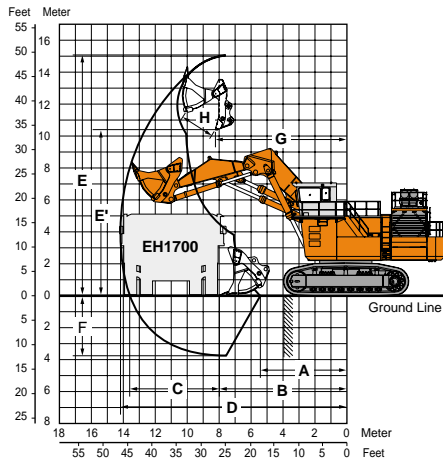
The MIC Mining comprises the DLU (Data-logging unit) on the machine. DLU continuously records performance of the engine and the hydraulic system. The record can be download by PC and PDA.



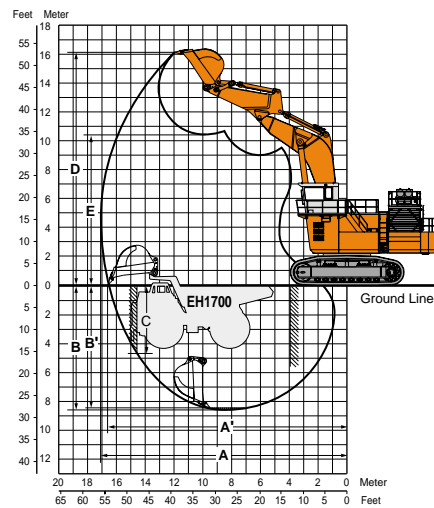
# EX2500-5

## SPECIFICATIONS

### WORKING RANGES



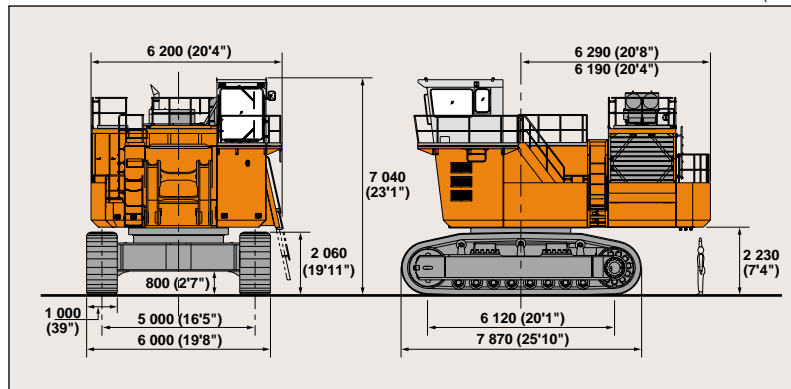
**Loading Shovel**  
**15.0 m<sup>3</sup> (19.6 yd<sup>3</sup>) / 16.5 m<sup>3</sup> (21.6 yd<sup>3</sup>)**  
**A Min. digging distance**  
 5 340 mm (17'6") / 5 200 mm (17'1")  
**B Min. level crowding distance**  
 7 980 mm (26'2") / 8 240 mm (27'0")  
**C Level crowding distance**  
 4 980 mm (16'4") / 4 960 mm (16'3")  
**D Max. digging reach**  
 14 060 mm (46'2") / 14 300 mm (46'11")  
**E Max. cutting height**  
 15 010 mm (49'3") / 15 250 mm (50'0")  
**E' Max. dumping height**  
 10 350 mm (33'11") / 10 350 mm (33'11")  
**F Max. digging depth**  
 3 720 mm (12'2") / 3 960 mm (13'0")  
**G Working radius at max. dumping height**  
 8 140 mm (26'8") / 8 140 mm (26'8")  
**H Max. bucket opening width**  
 2 150 mm (7'1") / 2 150 mm (7'1")  
**Crowding force**  
 918 kN (93 600 kgf, 206 400 lbf) /  
 907 kN (92 500 kgf, 204 000 lbf)  
**Breakout force**  
 843 kN (86 000 kgf, 189 600 lbf) /  
 784 kN (79 900 kgf, 176 200 lbf)



**Backhoe**  
**BE-boom length 9.00 m (29'6")**  
**BE'-arm length 4.20 m (13'9")**  
**A Max. digging reach**  
 17 050 mm (55'11")  
**A' Max. digging reach (on ground)**  
 16 500 mm (54'2")  
**B Max. digging depth**  
 8 570 mm (28'1")  
**B' Max. digging depth (8' level)**  
 8 470 mm (27'9")  
**C Max. cutting height**  
 16 160 mm (53'0")  
**D Max. dumping height**  
 10 360 mm (34'0")  
**E Max. vertical wall**  
 5 070 mm (16'8")  
**Bucket digging force**  
**ISO**  
 832 kN (84 800 kgf, 187 000 lbf)  
**SAE: PCSA**  
 751 kN (76 600 kgf, 169 900 lbf)  
**Arm crowd force**  
**ISO**  
 762 kN (77 800 kgf, 171 500 lbf)  
**SAE: PCSA**  
 745 kN (76 000 kgf, 167 600 lbf)

### DIMENSIONS

Unit: mm (ft in)



### ENGINE

Model ..... Cummins QSK45-C  
 Rated power  
 DIN 6271, net ..... 971 kW (1 320 PS) at 1 800 min<sup>-1</sup> (rpm)  
 SAE J1995, gross ..... 1 007 kW (1 350 hp) at 1 800 min<sup>-1</sup> (rpm)  
 Piston displacement ..... 45 L (2 746 in<sup>3</sup>)  
 Fuel tank ..... 3 600 L (951.1 US gal, 791.9 Imp gal)

### ELECTRIC MOTOR

Model ..... HITACHI TFOA-KK  
 Rated continuous output ..... 860 kW  
 Voltage & Frequency ..... 6 600 V & 50 Hz

### HYDRAULIC SYSTEM

Main pumps ..... 4 x variable piston  
 Pressure setting ..... 29.4 MPa (300 kgf/cm<sup>2</sup>, 4 270 psi)  
 Max. oil flow ..... 4 x 375 L/min (99.1 US gpm, 82.5 Imp gpm)  
 Swing pump ..... 2 x variable piston  
 Pressure setting ..... 29.4 MPa (300 kgf/cm<sup>2</sup>, 4 270 psi)  
 Max. oil flow ..... 2 x 425 L/min (112.3 US gpm, 93.5 Imp gpm)

### UPPERSTRUCTURE

Swing speed ..... 3.8 min<sup>-1</sup> (rpm)

### UNDERCARRIAGE

Travel speeds ..... High : 0 to 2.3 km/h (1.4 mph)  
 Low : 0 to 1.6 km/h (1.0 mph)  
 Maximum traction force ..... 1 330 kN (135 600 kgf, 299 000 lbf)  
 Gradeability ..... 30° (60 %) continuous

### WEIGHTS AND GROUND PRESSURE

**Loading Shovel**  
 Equipped with 15.0 m<sup>3</sup> (19.6 yd<sup>3</sup>; PCSA heaped)  
 bottom dump bucket

Shoe width	Operating weight	Ground pressure
1 000 mm (39")	242 000 kg (533 500 lb)	174 kPa (1.77 kgf/cm <sup>2</sup> , 25.2 psi)

**Backhoe**  
 Equipped with 9.00 m (29'6") boom, 4.20 m (13'9") arm,  
 and 15.0 m<sup>3</sup> (19.6 yd<sup>3</sup>; PCSA heaped) bucket

Shoe width	Operating weight	Ground pressure
1 000 mm (39")	239 000 kg (526 900 lb)	172 kPa (1.75 kgf/cm <sup>2</sup> , 24.9 psi)

### LOADING SHOVEL ATTACHMENTS

**Bucket Capacity (PCSA 2:1 heaped)**  
 15.0 m<sup>3</sup> (19.6 yd<sup>3</sup>) : Materials density 1 800 kg/m<sup>3</sup> (3 030 lb/yd<sup>3</sup>)  
 16.5 m<sup>3</sup> (21.6 yd<sup>3</sup>) : Materials density 1 600 kg/m<sup>3</sup> (2 700 lb/yd<sup>3</sup>)

### BACKHOE ATTACHMENTS

**Bucket Capacity (PCSA 1:1 heaped)**  
 15.0 m<sup>3</sup> (19.6 yd<sup>3</sup>) : Materials density 1 800 kg/m<sup>3</sup> (3 030 lb/yd<sup>3</sup>)

*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, go through Operator's Manual for proper operation.*

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