HITACHI

EX1200

■ **Engine Gross Power** : 510 kW (684 HP)

■ **Operating Weight**

Backhoe : 108 000—111 000 kg
(238 100—244 700 lb)

Loading Shovel : 111 000 kg
(244 700 lb)

■ **Backhoe Bucket**

PCSA Heaped :
3.0—7.1 m^3 (3.92—9.29 yd^3)

CECE Heaped :
2.7—6.4 m^3 (3.53—8.37 yd^3)

■ **Loading Shovel Bucket**

PCSA Heaped :
5.9—6.5 m^3 (7.72—8.5 yd^3)

NEW GIANT
OFFERS TRUE VALUE

Within the huge Hitachi EX1200 you'll find all the essentials of a truly outstanding machine. Rest assured that like all Hitachi equipment, the EX1200 has been designed for safety, productivity, durability and comfort. Hitachi has blended the latest technology with tough performance to create what it calls the "New Giant" that is ready to take on the excavating needs of today and tomorrow.

HIGHER PRODUCTION

30% Increase in Production*

*Compared to EX1100-3 using BE front and S/P mode.

More Powerful Engine

The source of the high production.

The EX1200 is equipped with a powerful large-displacement engine. An intercooler is used to provide optimal fuel efficiency, helping to keep total running costs down.

412 kW (560 PS) (EX1100-3) ▶ 482 kW (655 PS)

Larger Bucket

Provides high work capacity.

The large capacity bucket offers an increased excavating power-to-bucket-width ratio. The result is increased work efficiency for higher production.

- **Backhoe bucket:** 3.0 m³ (3.92 yd³) — 5.6 m³ (7.32 yd³)
- **BE bucket:** 5.6 m³ (7.32 yd³) — 7.1 m³ (9.29 yd³)

More Powerful Excavation

Increased power for excavating.

The powerful engine is combined with a highly efficient hydraulic system to offer ample excavating power for even the toughest sites.

Maximum Excavating Force

- **9.1m (29' 10") boom / 3.4m (11' 2") arm with general purpose bucket:** 457 kN (46 600 kgf, 102 700 lbf)
  - **Rock bucket:** 475 kN (48 400 kgf, 106 700 lbf)
- **7.55m (24' 9") BE-boom / 3.4m (11' 2") BE-arm with general purpose bucket:** 550 kN (56 100 kgf, 123 700 lbf)
  - **Rock bucket:** 550 kN (56 100 kgf, 123 700 lbf)

Combined Front Operations

Fast and efficient operation.

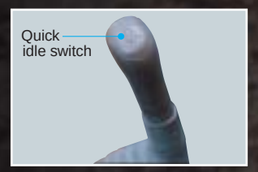
The popular Optimum Hydraulic System (OHS) is used along with the newly developed arm regenerative and boom regenerative mechanism for smooth and efficient front operations.

E/P Control

Provides a balance between economical operation and power.

Speed sensing control is used to efficiently control engine output. This system incorporates a microcomputer to regulate engine and hydraulic pump output to the level of work being performed.

- **S/P mode increases productivity**
  Choose the S/P mode to boost power during strenuous operation.
- **E mode reduces fuel consumption**
  This mode lowers fuel consumption during light-duty operations.



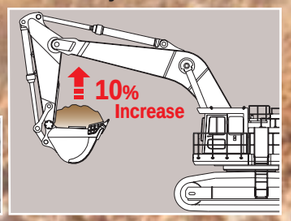
Auto Idle and Quick Idle

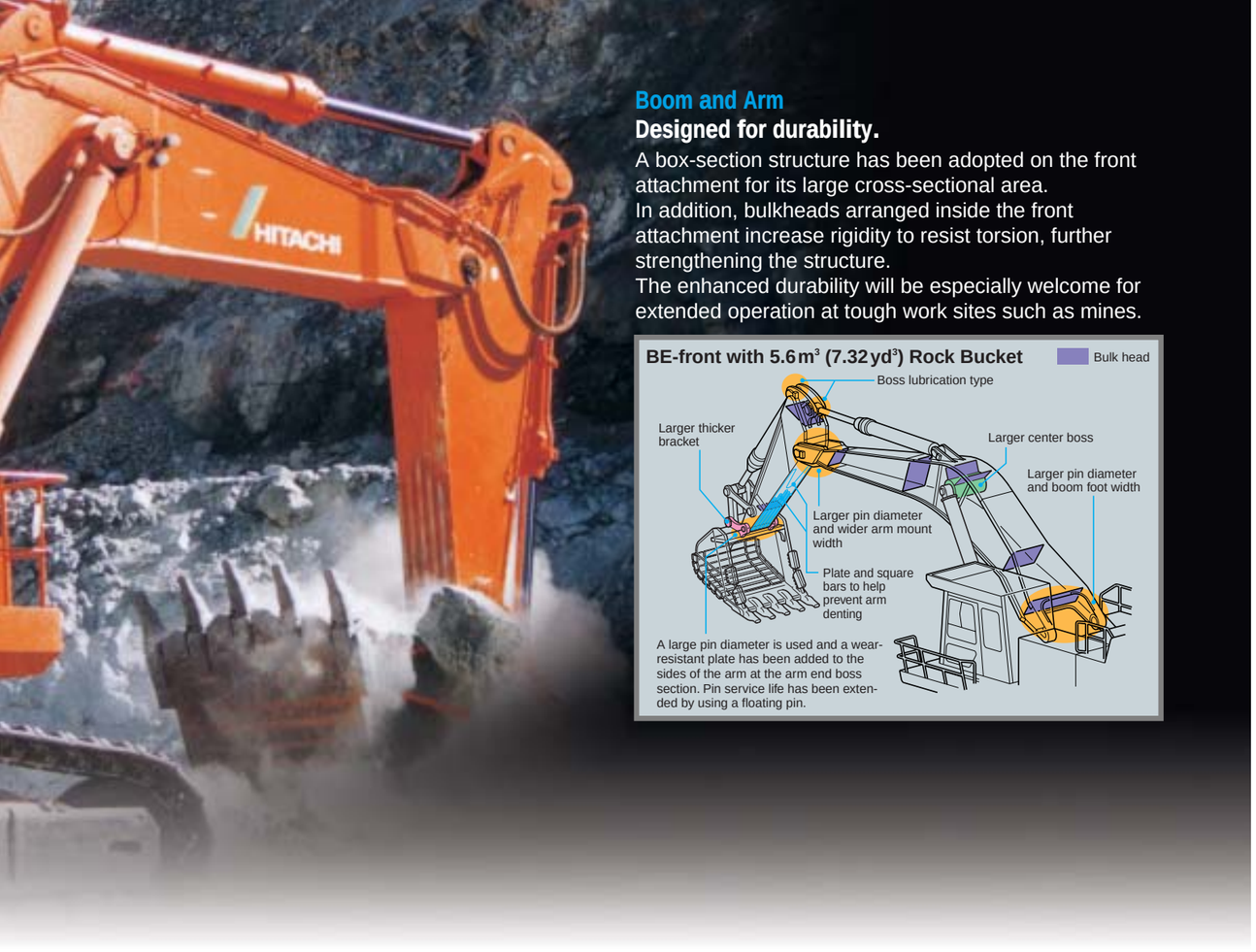
Help to reduce fuel consumption even further.

Heavy Lifting Function

Increases boom lift performance by 10%.

The touch of a button gives the added power for breaking up rock or working under harsh conditions.





Boom and Arm

Designed for durability.

A box-section structure has been adopted on the front attachment for its large cross-sectional area.
In addition, bulkheads arranged inside the front attachment increase rigidity to resist torsion, further strengthening the structure.
The enhanced durability will be especially welcome for extended operation at tough work sites such as mines.

BE-front with 5.6 m³ (7.32 yd³) Rock Bucket

A large pin diameter is used and a wear-resistant plate has been added to the sides of the arm at the arm end boss section. Pin service life has been extended by using a floating pin.

New Giant Offers True Value 2

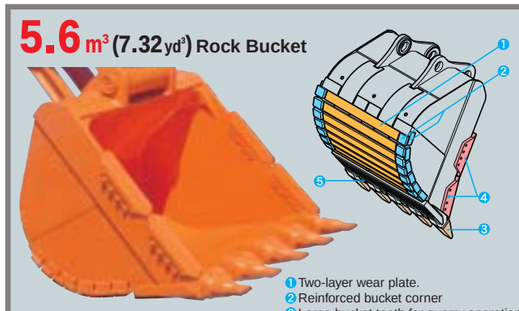
STRONG FRONT ARM

Rock Bucket
(5.0 m³ (6.54 yd³) / 5.6 m³ (7.32 yd³) rock bucket)

Designed for harsh work conditions.

Reinforced bucket designed specifically for withstanding the impact encountered when handling crushed rock.

5.6 m³ (7.32 yd³) Rock Bucket



1. Two-layer wear plate.
2. Reinforced bucket corner
3. Large bucket teeth for quarry operations
4. Double-linked side shroud
5. Cutting edge shroud ESCO SUPER 12C

Reinforced Pin Section

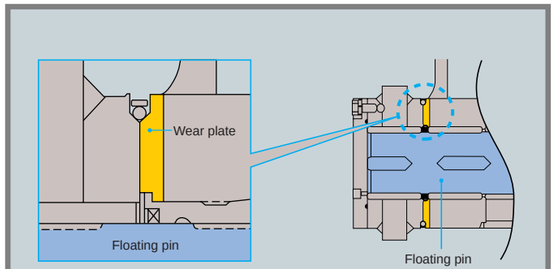
To provide a long service life to the arm end.

- Replaceable wear-resistant plate at the arm tip boss.

[For machines with 3.4 m (11' 2") BE-arm, 3.4 m (11' 2") and 4.5 m (14' 9") arm]

- Arm tip pin converted from fixed type to floating pin, extending service life.

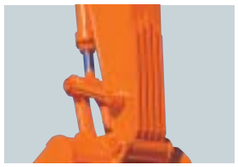
[For machines with 3.4 m (11' 2") BE-arm and 3.4 m (11' 2") arm only]



Under-plate Protection

A special plate and square bars are used to help prevent arm denting.

The damage prevention plate, fitted with reinforcing square bars, is installed as standard on the arm. This protects the arm bottom from damage from loaded rocks.



[For machines with 3.4 m (11' 2") BE-arm and 3.4 m (11' 2") arm only]

Large Displacement Engine with Low Operating RPM

Provides a reliable power source.

The large-displacement engine with power to spare will provide a long service life.

Independently Mounted Oil Cooler

Reduced heat helps increase hydraulic component durability.

The oil cooler and the radiator have been mounted in separate locations to reduce heat build up and increase cooling efficiency. Lower hydraulic oil temperature helps to increase the durability of hydraulic components.

New Giant Offers True Value 3

STRONG UNDERCARRIAGE

Giant Undercarriage

Forming the base for powerful operation.

The large undercarriage, 4 610 mm (15' 1") wide and 6 410 mm (21' 0") long, provides stability.

Rugged Travel Device

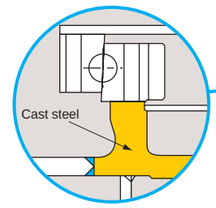
Damage-resistant travel device keeps the Giant moving.

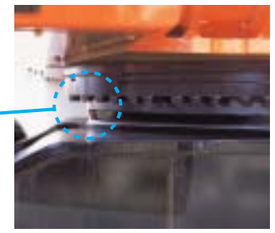
The shape of the frame has been changed, thicker steel plates have been used and compact, damage-resistant travel devices with reinforced reduction units have been provided to boost durability and reduce downtime.

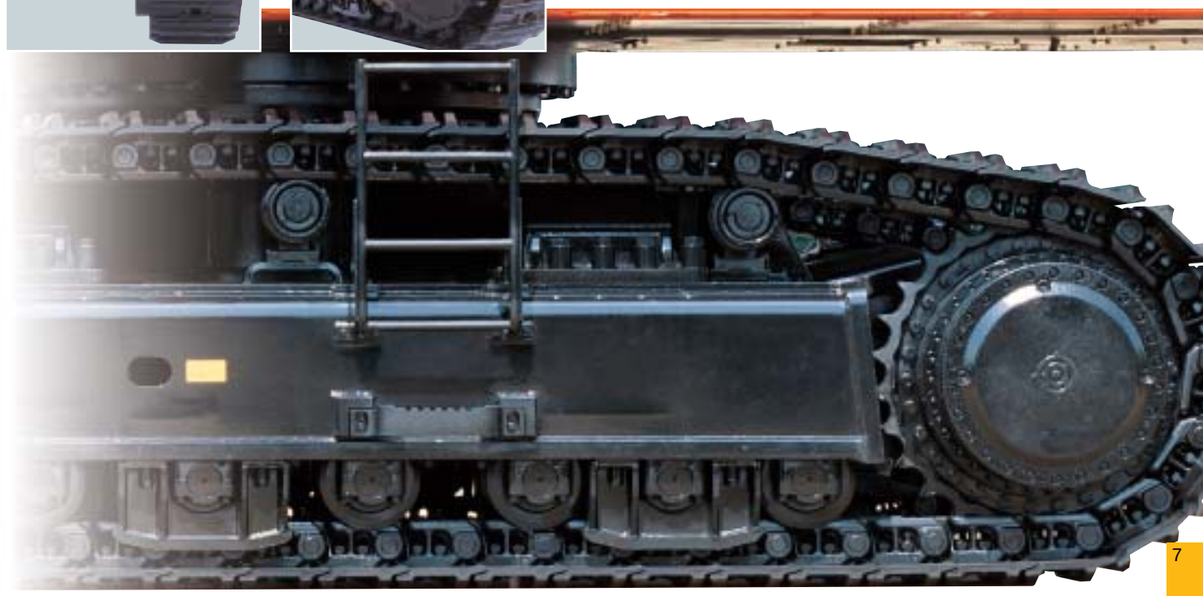
Track Center Frame

Built for high reliability.

The mounting section for the track center frame swing gear has an integral cast steel design to reduce the concentration of stress forces, thereby boosting reliability.





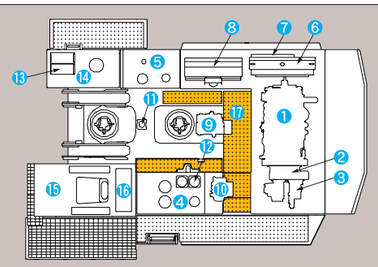


EASY MAINTENANCE HELPS REDUCE TOTAL LIFETIME COST

Easy Inspection and Maintenance

Wide access helps speed essential inspection time and reduce maintenance costs.

Plenty of room is provided for performing inspections. Key components have been centrally positioned and walkways have been provided to make inspections and maintenance as easy as possible.



1 Diesel Engine
2 Pump Drive Unit
3 Hydraulic Pump x 6
4 Hydraulic Oil Tank
5 Fuel Tank
6 Radiator
7 Air Cooler
8 Oil Cooler
9 Control Valve
10 Swing Control Valve
11 Center Joint
12 Hydraulic Filter
13 Battery
14 Lubricator
15 Cab
16 Air Conditioner
17 Center Walkway

Center Walkway

Radiator and Oil Cooler

Designed for easy cleaning.

Dust Ejector Automatically

Airborne dust and particles are separated/ejected automatically, extending element cleaning and replacing interval.

Auto-Grease Lubricator

Reduces the time and effort needed for lubrication.

An auto-grease lubricator is standard equipment. It dramatically reduces the work required for lubricating. (Does not lubricate the bucket area or the swing gear.)

Electric Lubricator

Provides easy lubrication of key areas.

The standard electric lubricator speeds the lubrication of the bucket area and the swing gear.

Longer Filter Life

Reduces the overall time and expense for replacement.

The service life of the engine oil filter and the fuel filter have been increased to 500 and 1,000 hours respectively.

Wide Inspection Doors

Easy access to engine and pump compartments.

The inspection doors open wide to provide easy access to the engine and pump compartments.

Easy-to-Change

External air intake filter.

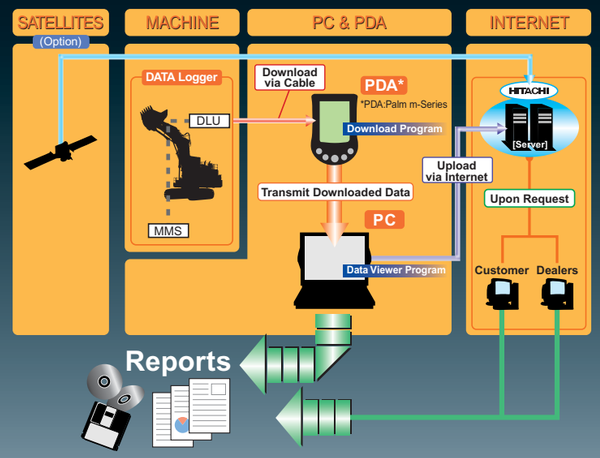
This large filter offers excellent performance and a long service life.

Electric Wiring Board

Speeds maintenance.

Located on the top of the rear section for fast and easy inspections.

*Photo shows opened electric wiring board.



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.

UNCOMPROMISING SAFETY

Rugged Pressurized Cab with Integrated Headguard

Offers solid protection to the operator.

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

** Operator Protective Guard*

Wide Sidewalks and Large Handrails

Wide sidewalks with handrails are provided at key locations for easy access to the cab and simplified servicing. Handrails conform to EN (European Norm), a world-class safety standard.

Adjustable Headlights

Provides bright illumination where it is needed.

The headlights above the cab can be adjusted downward to illuminate the work area.

Step Light

Equipped with shut-off timer.

The step light has a one minute shut-off timer. This allows the operator to use the ladder before the step light is turned off.

■ Other Devices for Safety

Pump bulkhead

Retractable seat belt

Pilot-control shut-off lever

Right window guard

Emergency evacuation hammer

ENVIRONMENTAL FRIENDLY

Cleaner Operating Engine

Steps have been taken to reduce harmful exhaust gas emissions .

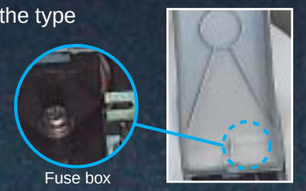
This engine conforms to U.S EPA* Tier2 and EU Stage Ⅱ emission regulations.

** Environmental Protection Agency of the United States of America*

Plastic Parts Marked for Recycling

Striving for environmental friendliness.

The plastic parts indicate the type of plastic used to help speed recycling.



Fuse box

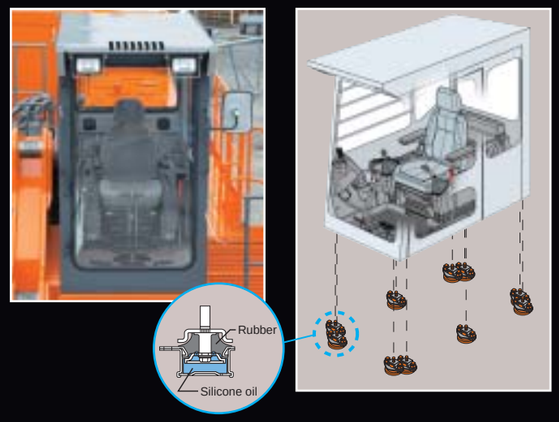
PRODUCTIVE COMFORT

Cab Size 10% Increase*
* Compared to EX1100-3

Large Comfortable Cab

Provides comfort to reduce operator fatigue

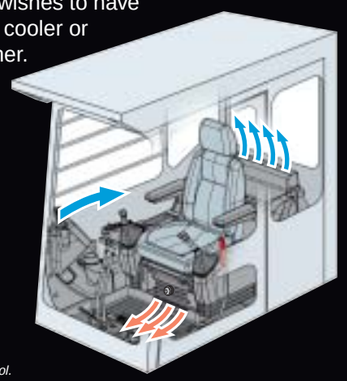
The cab is 10% larger than the previous model to provide an even higher level of comfort. It has been designed to offer clear visibility of the work area. Fluid-filled elastic mounts help reduce fatigue-causing vibration.



Bi-Level Automatic Air Conditioner

Automatically keeps the operator's cab at a comfortable temperature.

All the operator has to do is set the temperature. The temperature, fan speed and discharge vents will be automatically controlled. Bi-level control is also available if the operator wishes to have one area of the cab cooler or warmer than the other.



** Illustration shows a sample of the air flow during bi-level control.*

One-Glance Instrument Panel

Positioned within natural line of sight.

Instrument panel is positioned so that all key operating conditions can be monitored with just a glance.

Well-Positioned Levers and Switches

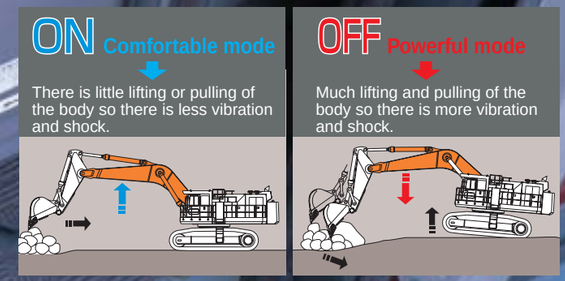
Levers and switches are near the operator to reduce the need to reach for them.

The levers and switches have been strategically located to reduce the amount of operator movement required to operate them. Frequently used switches have been centralized at a location next to the operator.

Boom Mode Selector

Helps to reduce shaking and jerking of body during scraping operations.

The amount the body can be lifted or pulled by the front of machine can be selected. This helps to provide for more comfortable operation and contributes to longer component service life.



ENGINE

Model ..... Hitachi S6R-Y2TAA-2
Type ..... Water-cooled, 4-cycle, 6-cylinder in line, turbo-charged direct injection chamber-type diesel engine.
Rated power
DIN 6271, net ..... 482 kW (655 PS) at 1 650 min^{-1} (rpm)
SAE J1349, net ..... 482 kW (646 HP) at 1 650 min^{-1} (rpm)
SAE J1995, gross ..... 510 kW (684 HP) at 1 650 min^{-1} (rpm)
Piston displacement ..... 24.5 L (1 495 in^3)
Bore and stroke ..... 170 mm × 180 mm (6.7" × 7.1")
Batteries ..... 2 × 12V, 2 × 220 AH

HYDRAULIC SYSTEM

Main pumps ..... 3 variable-displacement, swash plate type axial piston pumps
Main. oil flow ..... 3 × 495 L/min (3 × 130.8 US gpm, 3 × 108.9 lmp gpm)
Pilot pump ..... Gear pump
Max. oil flow ..... 63.0 L/min (16.6 US gpm,13.9 lmp gpm)
Swing speed ..... 5.8 min^{-1} (rpm)

UPPERSTRUCTURE

Swing speed ..... 5.8 min^{-1} (rpm)

UNDERCARRIAGE

Travel speed ..... High: 0 to 3.5 km/h (2.2 mph)
Low: 0 to 2.4 km/h (1.5 mph)
Maximum traction force ..... 618 kN (6 300 kgf, 138 900 lbf)
Gradability ..... 35° (70%) continuous

WEIGHTS AND GROUND PRESSURE

Backhoe
EX1200-5c : Equipped with 9.1 m (29' 10") boom, 3.4 m (11' 2") arm, and 5.0 m^3 (6.54 yd^3; PCSA heaped) bucket

Shoe type	Shoe width	Operating weight	Ground pressure
Double grousers	710 mm (28")	108 000 kg (238 100 lb)	136 kPa (1.39 kgf/cm^2, 19.7 psi)
	900 mm (35")	110 000 kg (242 500 lb)	109 kPa (1.11 kgf/cm^2, 15.8 psi)

EX1200-5c BE-front : Equipped with 7.55 m (24' 9") BE-boom, 3.4 m (11' 2") BE-arm, and 6.5 m^3 (8.50 yd^3; PCSA heaped) bucket

Shoe type	Shoe width	Operating weight	Ground pressure
Double grousers	710 mm (28")	109 000 kg (240 300 lb)	137 kPa (1.40 kgf/cm^2, 19.9 psi)
	900 mm (35")	111 000 kg (244 700 lb)	109 kPa (1.12 kgf/cm^2, 16.0 psi)

Loading Shovel
Equipped with 6.5 m^3 (8.5 yd^3 ; PCSA heaped) bottom dump bucket

Shoe type	Shoe width	Operating weight	Ground pressure
Double grousers	710 mm (28")	111 000 kg (244 700 lb)	139 kPa (1.40 kgf/cm^2, 20.2 psi)

BACKHOE ATTACHMENTS

Buckets

Capacity		Width		No. of teeth	Weight	Type	Materials density kg/m^3 (lb/yd^3)			
							BE-front	9.1m (29' 10") boom		
PCSA heaped (1:1)	CECE heaped (2:1)	Without shroud	With shroud				7.55 m (24' 9") BE-boom 3.4 m (11' 2") BE-arm	3.4 m (11' 2") arm	4.5 m (14' 9") arm	5.8 m (19' 0") arm
3.0 m^3(3.92 yd^3)	2.7 m^3	1 700 mm (5'7")	1 800 mm (5'11")	5	3 100 kg (6 830 lb)	●				1 800 (3 030)
3.4 m^3(4.45 yd^3)	3.0 m^3	1 840 mm (6'0")	1 940 mm (6'4")	5	3 250 kg (7 170 lb)	◎				1 800 (3 030)
3.5 m^3(4.58 yd^3)	3.2 m^3	1 470 mm (4'10")	1 570 mm (5'2")	4	4 300 kg (9 480 lb)	●			1 800 (3 030)	
3.6 m^3(4.71 yd^3)	3.2 m^3	1 500 mm (4'11")	1 600 mm (5'3")	5	4 030 kg (8 880 lb)	◎			2 100 (3 540)	
4.0 m^3(5.23 yd^3)	3.6 m^3	1 620 mm (5'4")	1 720 mm (5'8")	5	4 160 kg (9 170 lb)	◎			1 800 (3 030)	
4.5 m^3(5.89 yd^3)	4.0 m^3	1 800 mm (5'11")	1 900 mm (6'3")	5	4 300 kg (9 480 lb)	◎		2 100 (3 540)	1 600 (2 700)	
4.5 m^3(5.89 yd^3)	4.0 m^3	1 710 mm (5'7")	1 810 mm (5'11")	5	4 650 kg (10 250 lb)	●		1 800 (3 030)		
5.0 m^3(6.54 yd^3)	4.4 m^3	1 920 mm (6'11")	2 100 mm (6'11")	5	4 490 kg (9 900 lb)	◎		1 800 (3 030)		
5.0 m^3(6.54 yd^3)	4.4 m^3	1 860 mm (6'1")	1 960 mm (6'5")	5	5 460 kg (12 040 lb)	●		1 800 (3 030)		
5.6 m^3(7.32 yd^3)	4.9 m^3	2 140 mm (7'0")	2 240 mm (7'4")	5	4 720 kg (10 400 lb)	◎		1 600 (2 700)		
5.6 m^3(7.32 yd^3)	4.9 m^3	2 140 mm (7'0")	2 240 mm (7'4")	5	6 510 kg (14 350 lb)	●	1 800 (3 030)			
6.0 m^3(7.85 yd^3)	5.2 m^3	2 180 mm (7'2")	2 280 mm (7'6")	6	6 170 kg (13 600 lb)	◎	2 100 (3 540)			
6.5 m^3(8.50 yd^3)	5.7 m^3	2 210 mm (7'3")	2 310 mm (7'7")	6	6 350 kg (14 000 lb)	◎	1 800 (3 030)			
7.1 m^3(9.29 yd^3)	6.4 m^3	2 380 mm (7'10")	2 480 mm (8'2")	6	6 680 kg (14 730 lb)	◎	1 600 (2 700)			

●: Rock bucket ◎: General purpose bucket

LOADING SHOVEL ATTACHMENTS

Bucket (PCSA heaped 2:1)

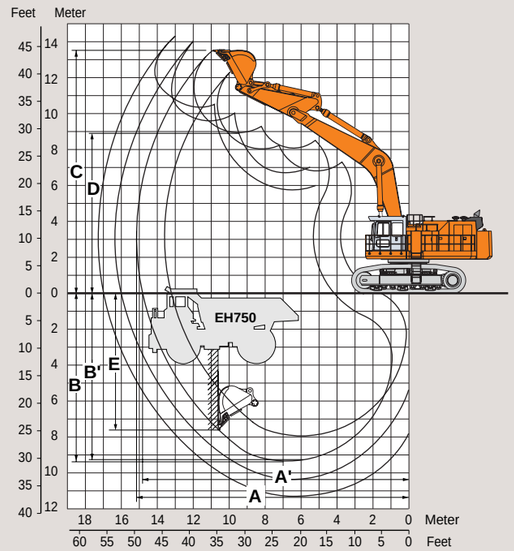
Capacity	Width	No.of teeth	Weight	Type	Materials density
5.9 m^3 (7.7 yd^3)	2 510 mm (8' 3")	6	9 780 kg (21 600 lb)	●	1 800 kg/m^3 (3 030 lb/yd^3)
6.5 m^3 (8.5 yd^3)	2 700 mm (8' 10")	6	9 200 kg (20 300 lb)	◎	1 800 kg/m^3 (3 030 lb/yd^3)

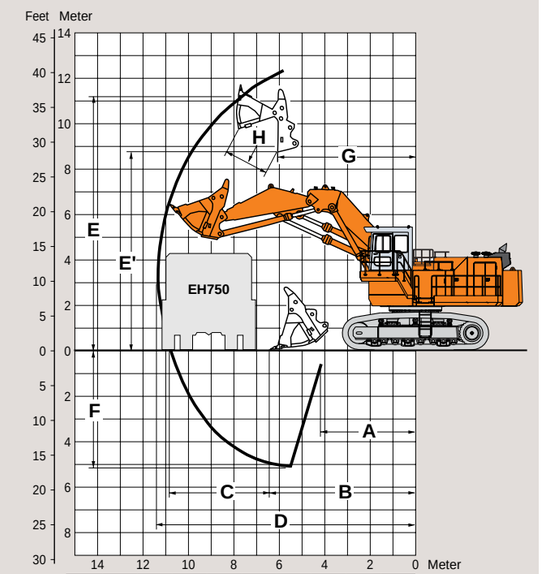
●: Bottom dump type rock bucket
◎: Bottom dump type general purpose bucket

OPTIONAL EQUIPMENT

- Travel motion alarm device
- High cab kit (for Backhoe)
- Full track guard

WORKING RANGES

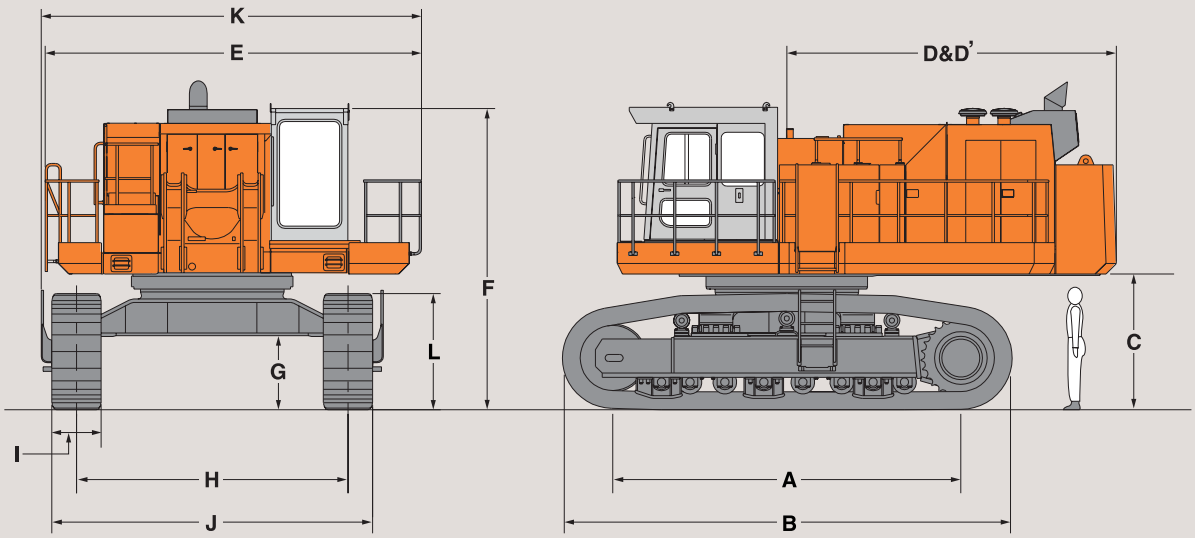




Boom length	7.55 m (24' 9") BE-boom	9.1 m (29' 10")		
Arm length	3.4 m (11' 2") BE-arm	3.4 m (11' 2")	4.5 m (14' 9")	5.8 m (19' 0")
A Max. digging reach	13 760 mm (45' 2")	15 340 mm (50' 4")	16 380 mm (53' 9")	17 360 mm (56' 11")
A' Max. digging reach (on ground)	13 380 mm (43' 11")	15 000 mm (49' 3")	16 070 mm (52' 9")	17 070 mm (56' 0")
B Max. digging depth	7 940 mm (26' 1")	9 340 mm (30' 8")	10 420 mm (34' 2")	11 420 mm (37' 6")
B' Max. digging depth (8'level)	7 820 mm (25' 8")	9 210 mm (30' 3")	10 310 mm (33' 10")	11 330 mm (37' 2")
C Max. cutting height	12 300 mm (40' 4")	13 490 mm (44' 3")	14 020 mm (46' 0")	14 400 mm (47' 3")
D Max. dumping height	8 020 mm (26' 4")	8 920 mm (29' 3")	9 430 mm (30' 11")	10 360 mm (34' 0")
E Max. vertical wall depth	5 080 mm (16' 8")	7 620 mm (25' 0")	8 880 mm (29' 2")	10 360 mm (34' 0")
Bucket digging force kN (kgf,lbf) ISO	550 (56 100 , 123 700)	457 (46 600, 102 700)	457 (46 600, 103 000)	326 (33 200, 73 200)
Bucket digging force kN (kgf,lbf) SAE:PCSA	500 (51 000 , 112 400)	418 (42 600, 93 900)	418 (42 600, 93 900)	293 (29 900, 65 900)
Arm crowd force kN (kgf,lbf) ISO	412 (42 000 , 92 600)	411 (41 900, 92 400)	330 (33 700, 74 300)	287 (29 300, 64 600)
Arm crowd force kN (kgf,lbf) SAE:PCSA	402 (41 000 , 90 400)	402 (41 000, 90 400)	325 (33 100, 73 000)	284 (29 000, 63 900)

	Bottom dump type
A Min. digging distance	4 460 mm (14' 8")
B Min. level crowding distance	6 520 mm (21' 5")
C Level crowding distance	4 340 mm (14' 3")
D Max. digging reach	11 440 mm (37' 6")
E Max. cutting height	12 350 mm (40' 6")
E' Max. dumping height	8 740 mm (28' 8")
F Max. digging depth	5 240 mm (17' 2")
G Working radius at max. dumping height	6 090 mm (20' 0")
H Max. bucket opening width	1 880 mm (6' 2")
Crowding force	583 kN (59 400 kgf, 131 000 lbf)
Breakout force	589 kN (60 100 kgf, 132 500 lbf)

DIMENSIONS



A	Distance between tumblers	5 000 mm (16' 5")	G	Min. ground clearance	990 mm (3' 3")
B	Undercarriage length	6 410 mm (21' 0")	H	Track gauge	3 900 mm (12' 10")
C	Counterweight clearance	1 790 mm (5' 10")	I	Track shoe width	710 mm (28") /900 mm (35")
D	Rear-end swing radius	4 850 mm (15' 11")	J	Undercarriage width	4 610 mm (15' 1") /4 800 mm (15' 9")
D'	Rear-end length	4 740 mm (15' 7")	K	Overall width	5 430 mm (17' 10")
E	Overall width of upper structure	5 380 mm (17' 8")	L	Track height	1 570 mm (5' 2")
F	Overall height of cab: Backhoe	4 320 mm (14' 2")			
	: Loading shovel	5 410 mm (17' 9")			

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

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