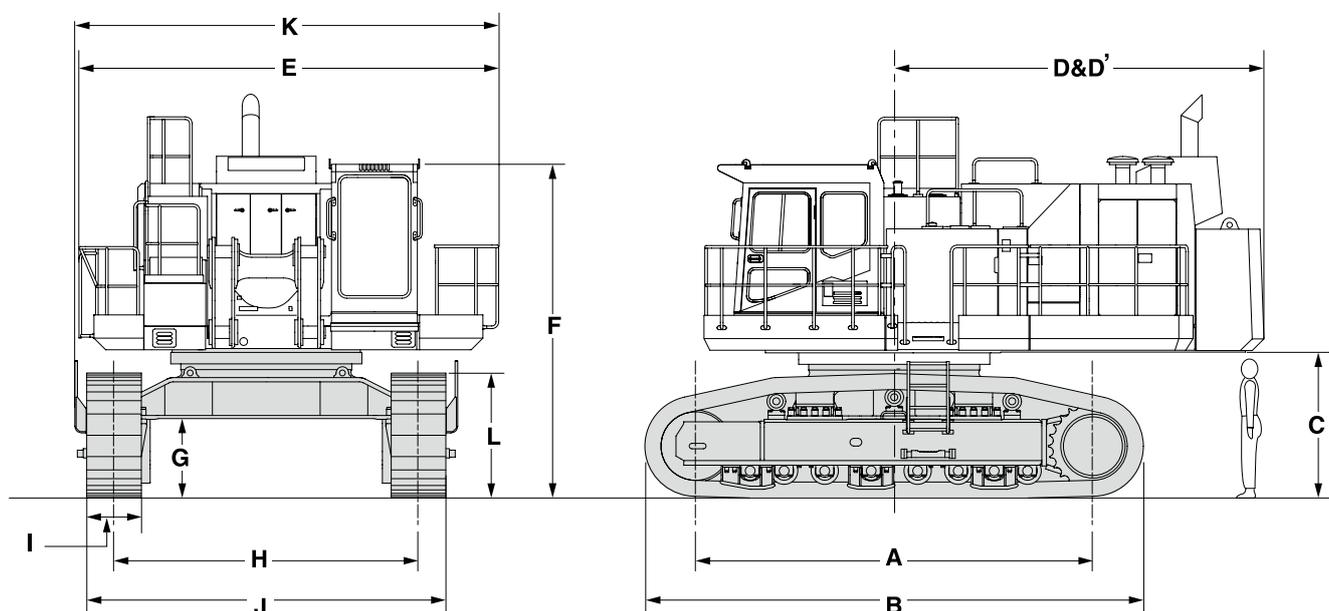


EX1200

Specifications



| | | | |
|----|---------------------------------|----------------|----------|
| A | Distance between tumbler | 5 090 mm | |
| B | Undercarriage length | 6 500 mm | |
| C | Counterweight clearance | 1 820 mm | |
| D | Rear-end swing radius | 4 850 mm | |
| D' | Rear-end length | 4 740 mm | |
| E | Overall width of upperstructure | 5 380 mm | |
| F | Overall height of cab | Backhoe | 4 350 mm |
| | | Loading shovel | 5 440 mm |
| G | Min. ground clearance | 1 020 mm | |
| H | Track gauge | 3 900 mm | |
| I | Track shoe width | 700 mm | 900 mm |
| J | Undercarriage width | 4 600 mm | 4 800 mm |
| K | Overall width | 5 430 mm | |
| L | Track height | 1 660 mm | |

HYDRAULIC EXCAVATOR

■ **Model Code** : EX1200-6

■ **Engine Gross Power** : 567 kW (760 HP)

■ **Operating Weight** : Backhoe : 111 000 kg
 BE-front: 112 000 kg
 Loading Shovel: 114 000 kg

■ **Backhoe Bucket** : SAE, PCSA Heaped: 5.2 - 6.7 m³
 CECE Heaped: 4.6 - 5.9 m³

■ **Loading Shovel Bucket** : Heaped: 5.9 - 6.5 m³

SPECIFICATIONS

EX1200-6

ENGINE

| | |
|---------------------------|---|
| Model | Cummins QSK23-C |
| Type | Water-cooled, 4-cycle, 6-cylinder in line, turbo-charged direct injection chamber-type diesel engine. |
| Rated power | |
| SAE J1995, gross | 567 kW (760 HP) at 1 800 min ⁻¹ (rpm) |
| Net | 552 kW (740 HP) at 1 800 min ⁻¹ (rpm) |
| Maximum torque | 3 472 N·m (354 kgf·m) at 1 350 min ⁻¹ (rpm) |
| Piston displacement | 23.15 L |
| Bore and stroke | 170 mm x 170 mm |
| Starting system | 24 V electric motor |
| Batteries | 2 x 12 V , 2 x 176 AH |

HYDRAULIC SYSTEM

Hitachi's ETS (Electronic Total control System) can achieve maximum job efficiency by reducing fuel consumption and noise levels, while maximizing productivity through the optimization of engine-pump functions with excellent controllability increasing operator comfort.

- E-P Control (Computer-aided Engine-Pump Control system) Main pumps regulated by electric engine speed sensing control system. Optimum operation mode selectable among 3 power modes depending on type of job.
- OHS (Optimum Hydraulic System) assures fully independent and combined operations.
- FPS (Fuel-saving Pump System)
- Auto-idling system
- High-pressure 2-speed travel system for high traction force and travel speed.
- Forced-cooling pump drive system
- TIG (Tungsten Insert Gas) welding pipings

| | |
|--------------------|--|
| Main pumps | 3 variable-displacement, swash plate type axial piston pumps |
| Max.oil flow | 3 X 520 L/min |
| Pilot pump | Gear pump |
| Max.oil flow | 56.0 L/min |

Relief Valve Settings

| | |
|-------------------------------|-------------------------------------|
| Boom/arm/bucket circuit | 31.9 MPa (325 kgf/cm ²) |
| Travel circuit | 34.3 MPa (350 kgf/cm ²) |
| Swing circuit | 27.4 MPa (280 kgf/cm ²) |
| Pilot circuit | 4.4 MPa (45 kgf/cm ²) |

Hydraulic Cylinders

High-strength piston rods and tubes adopted. Cylinder cushion mechanisms are provided for boom, arm, bucket and dump cylinders. Bucket cylinders of loading shovel are provided with protector.

Cylinder Dimensions Loading shovel

| | Quan. | Bore | Rod diameter |
|--------|-------|--------|--------------|
| Boom | 2 | 230 mm | 160 mm |
| Arm | 1 | 215 mm | 150 mm |
| Bucket | 2 | 200 mm | 150 mm |
| Dump | 2 | 140 mm | 85 mm |
| Level | 1 | 230 mm | 160 mm |

Backhoe

| | Quan. | Bore | Rod diameter |
|---------------------------|-------|--------|--------------|
| Boom | 2 | 230 mm | 160 mm |
| Arm | 1 | 260 mm | 180 mm |
| Bucket (for 3.6 m arm) | 1 | 230 mm | 160 mm |
| Bucket (for 3.4 m BE-arm) | 1 | 240 mm | 170 mm |

Hydraulic Filters

All hydraulic circuits have high-quality hydraulic filters for protection against oil contamination and longer life of hydraulic components.

| | | |
|---------------------------------------|------|--------|
| | Qty. | |
| Full flow filter | 2 | 10 μm |
| Drain filter | 1 | 10 μm |
| (For all plunger type pumps & motors) | | |
| Suction filter | 2 | 177 μm |
| Pilot filter | 1 | 10 μm |
| Line filter (Delivery filter) | 3 | 95 μm |

These filters are centralized in arrangement for facilitating maintenance.

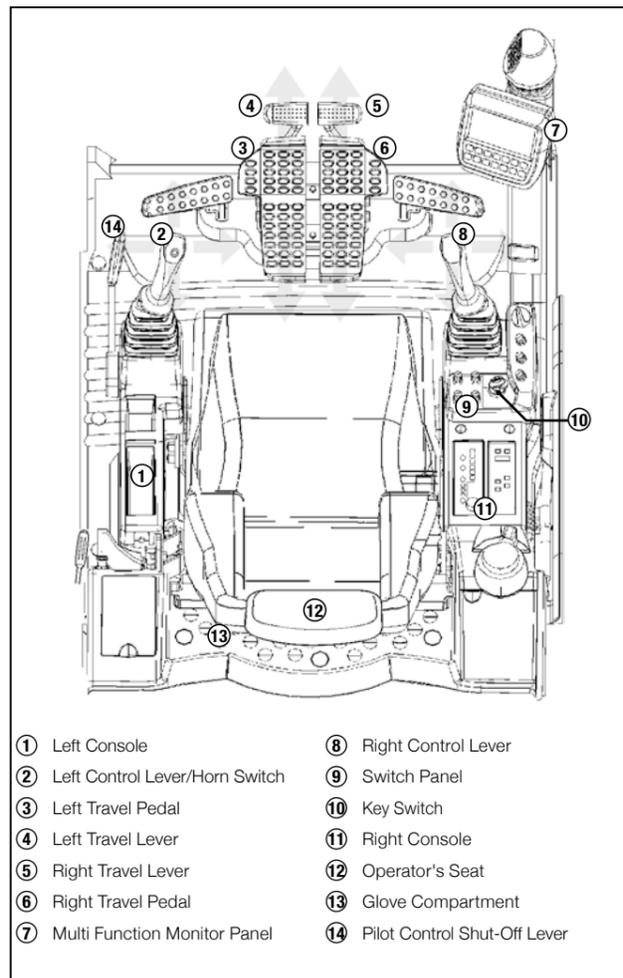
CONTROLS

2 Implement Levers

Remote-controlled joystick hydraulic servo system. Right lever is for boom and bucket control, left lever for swing and arm control. For loading shovel, 2 pedals provided for opening/closing the bottom dump bucket.

2 Travel Levers with Pedals

Remote-controlled hydraulic servo system. Independent drive at each track allows counter rotation of tracks.



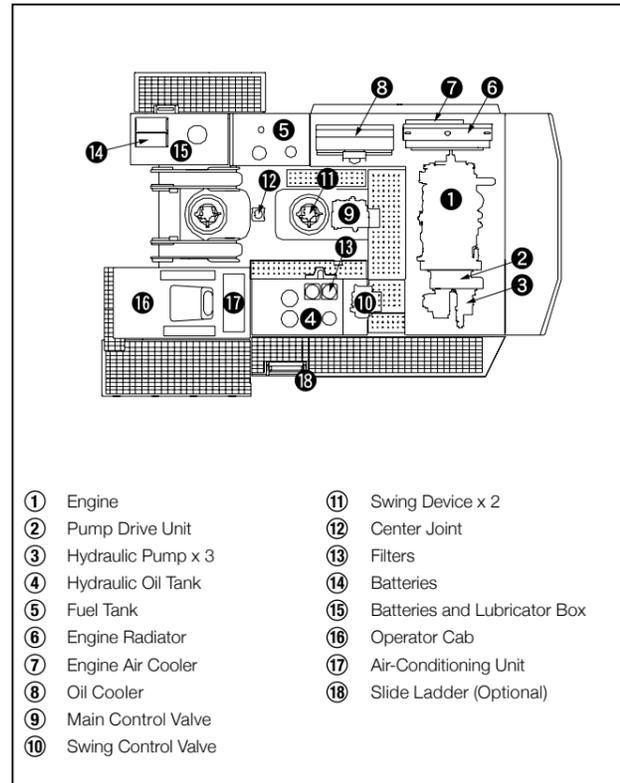
UPPERSTRUCTURE

Revolving Frame

A deep, full-reinforced box section. Heavy-gauge steel plates used for ruggedness.

Deck Machinery

Maintenance accessibility is the major feature in the lay-out of deck machinery. Sidewalks provide easy access to engine, hydraulic and electrical components.



Swing Device

2 high-torque, axial-piston motors with planetary reduction gear bathed in oil. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear immersed in lubricant. Swing parking brake is spring-set, hydraulic-released disc type.

Swing speed 5.2 min⁻¹ (rpm)

Operator's Cab

The sturdy cab, with the top guard conforming to OPG Level II(ISO), helps protect the operator from falling objects. Independent, pressurized, 1 100 mm wide, 1 900 mm high, roomy 3.46 m³ cab with tinted-glass windows features all-round visibility. Spring-suspension-type, fully-adjustable reclining seat with armrests; movable with or without front and swing control levers by slide. Instruments and control panel are within easy reach of the operator.

Powerful fresh air ventilation type air conditioner. Cool-and-hot box and rotatable blower louvers also serve as defrosters. Thus, rapid air-conditioning can be achieved for operator comfort.

Fluid-filled elastic-mounting and sound-proofing structure to reduce noise level and vibration.

Noise level 75 dB(A) in the cab; on max. engine speed under no-load condition.

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Bolt linkage for side frame assures durability. Heavy-duty track frame of all-welded, stress-relieved structure. Top-grade materials used for toughness. Lifetime-lubricated induction-hardened track rollers, idlers and sprockets with floating seals. Track shoes of rolled alloy with double grousers. Double strut reinforced track links with track guards. Hydraulic (grease) track adjusters with shock absorbing recoil springs.

Tractor-type Undercarriage

Double grouser track shoes of induction-hardened rolled alloy. Shoe width 700 mm standard
900 mm optional for Backhoe attachment only

Numbers of Rollers and Shoes on Each Side

| | |
|---------------------|----|
| Upper rollers | 3 |
| Lower rollers | 8 |
| Track shoes | 49 |

Travel Device

Each track driven by a high-torque, axial piston motor through planetary reduction gears, allowing counter rotation of the tracks. Easily replaceable sprockets. Parking brake of spring-set, hydraulic-released disc type.

Travel speeds High : 0 to 3.5 km/h
Low : 0 to 2.4 km/h

Maximum traction force 707 kN (72 100 kgf)

Gradeability 70 % (35 degree) max.

WEIGHTS AND GROUND PRESSURE

Backhoe

EX1200-6: Equipped with 9.0 m boom, 3.6 m arm, and 5.2 m³ (SAE, PCSA heaped) bucket

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-----------------|------------|------------------|-------------------------------------|
| Double grousers | 700 mm | 111 000 kg | 142 kPa (1.45 kgf/cm ²) |
| | 900 mm | 113 000 kg | 112 kPa (1.14 kgf/cm ²) |

EX1200-6 BE-front: Equipped with 7.55 m BE-boom, 3.4 m BE-arm, and 6.7 m³ (SAE, PCSA heaped) bucket

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-----------------|------------|------------------|-------------------------------------|
| Double grousers | 700 mm | 112 000 kg | 143 kPa (1.46 kgf/cm ²) |
| | 900 mm | 114 000 kg | 113 kPa (1.15 kgf/cm ²) |

Loading Shovel

Equipped with 6.5 m³ (Heaped) bottom dump bucket

| Shoe type | Shoe width | Operating weight | Ground pressure |
|-----------------|------------|------------------|-------------------------------------|
| Double grousers | 700 mm | 114 000 kg | 146 kPa (1.49 kgf/cm ²) |

SERVICE REFILL CAPACITIES

| | |
|---------------------------------|---------|
| Fuel tank | 1 470 L |
| Engine coolant | 139 L |
| Engine oil | 70 L |
| Pump drive | 15 L |
| Swing device (each side) | 25 L |
| Travel final device (each side) | 43 L |
| Hydraulic system | 1 350 L |
| Hydraulic oil tank | 610 L |

SPECIFICATIONS

BACKHOE ATTACHMENTS

Boom and arm are all-welded, low-stress, full-box section design. Bucket of all-welded high-strength steel structure, side clearance adjust mechanism is provided on the bucket joint brackets.

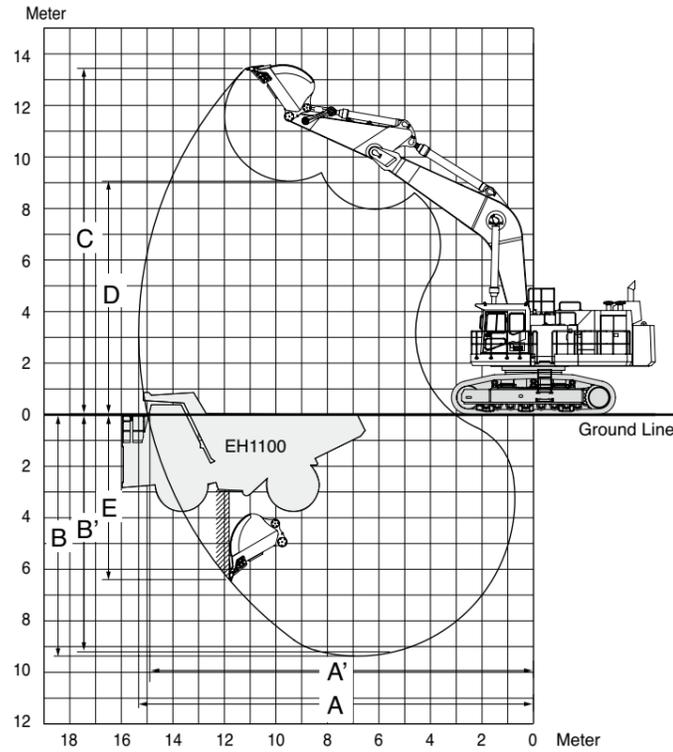
- Two-points support-type boom cylinder pin linkage
- Double lip pin seals (in all portions) plus O-ring at arm top and link A
- Super-V bucket teeth

- Flexible pin at the arm top and link A for bucket linkage.

BE (Bulk Excavation) front

BE-front: The EX1200-6 BE-front is designed and manufactured as a production-oriented machine. Its features include a short arm and boom, large-capacity bucket, large-digging force and superb digging / loading capability.

WORKING RANGES



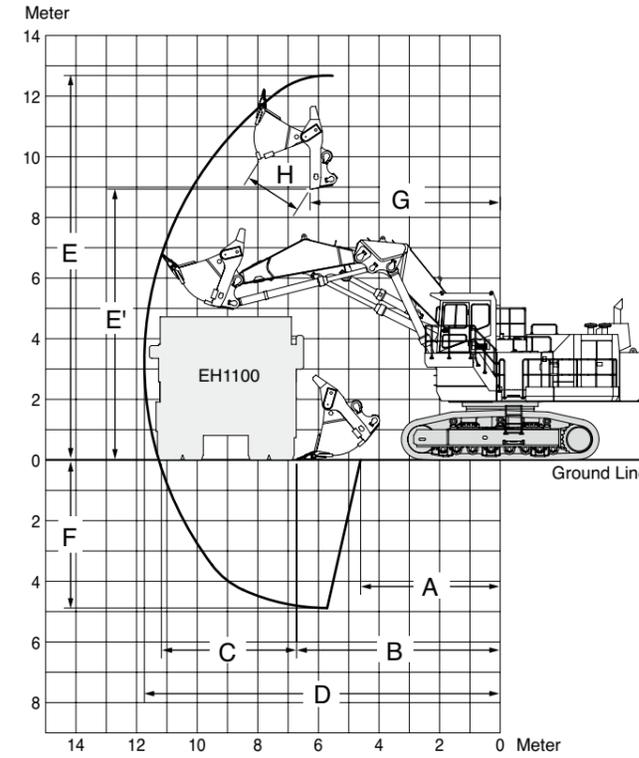
| Boom length | 7.55 m BE-boom | 9.0 m | |
|-----------------------------------|-------------------|-----------------|-----------------|
| Arm length | 3.4 m BE-arm | 3.6 m | |
| A Max. digging reach | 13 750 mm | 15 350 mm | |
| A' Max. digging reach (on ground) | 13 360 mm | 15 010 mm | |
| B Max. digging depth | 8 050 mm | 9 380 mm | |
| B' Max. digging depth (8'level) | 7 920 mm | 9 260 mm | |
| C Max. cutting height | 12 410 mm | 13 460 mm | |
| D Max. dumping height | 8 050 mm | 9 080 mm | |
| E Max. vertical wall | 5 180 mm | 6 450 mm | |
| Bucket digging force | ISO | 569 (58 000) | 482 (49 200) |
| | SAE: PCSA | 512 (52 200) | 440 (44 900) |
| Arm crowd force | ISO | 438 (44 700) | 430 (43 900) |
| | SAE: PCSA | 425 (43 400) | 422 (43 000) |

LOADING SHOVEL ATTACHMENTS

Boom and arm are all-welded, low-stress, high-tensile strength steel full-box section design. Efficient, automatic level crowding achieved by one-lever control as the parallel link mechanism keeps the bucket digging angle constant, and level cylinder circuit maintains the bucket height constant (Auto-Leveling Crowd Mechanism).

- Dual-support-type boom/arm/bucket pin linkage
- Double lip pin seals plus O-ring at arm top

WORKING RANGES



| Bucket capacity (heaped) | 6.5 m ³ |
|---|---------------------|
| A Min. digging distance | 4 510 mm |
| B Min. level crowding distance | 6 580 mm |
| C Level crowding distance | 4 370 mm |
| D Max. digging reach | 11 500 mm |
| E Max. cutting height | 12 410 mm |
| E' Max. dumping height | 8 750 mm |
| F Max. digging depth | 4 780 mm |
| G Working radius at max. dumping height | 6 140 mm |
| H Max. bucket opening width | 1 880 mm |
| Crowding force | 577 kN (58 900 kgf) |
| Breakout force | 594 kN (60 600 kgf) |

Bucket

| Capacity | | Width | | No. of teeth | Weight | Type | Materials density kg/m ³ | |
|--------------------|--------------------|----------------|-------------|--------------|----------|------|-------------------------------------|------------|
| SAE, PCSA heaped | CECE heaped | Without shroud | With shroud | | | | BE-front | 9.0 m boom |
| 5.2 m ³ | 4.6 m ³ | 1 940 mm | 2 120 mm | 5 | 4 910 kg | ◎ | 7.55 m BE-boom 3.4 m BE-arm | 1 800 |
| 5.2 m ³ | 4.6 m ³ | 1 900 mm | 2 000 mm | 5 | 5 930 kg | ● | 9.0 m boom | 1 800 |
| 5.8 m ³ | 5.1 m ³ | 2 120 mm | 2 220 mm | 5 | 6 930 kg | ● | 1 800 | |
| 6.7 m ³ | 5.9 m ³ | 2 300 mm | 2 400 mm | 5 | 6 650 kg | ◎ | 1 800 | |

- :Rock bucket
- ◎:General purpose bucket

Bucket

| Capacity (heaped) | Width | No.of teeth | Weight | Type | Materials density |
|--------------------|----------|-------------|----------|------|-------------------------|
| 5.9 m ³ | 2 510 mm | 6 | 9 780 kg | ● | 1 800 kg/m ³ |
| 6.5 m ³ | 2 700 mm | 6 | 9 200 kg | ◎ | 1 800 kg/m ³ |

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

EQUIPMENT / TRANSPORTATION

STANDARD EQUIPMENT

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

ENGINE

- H/P mode control
- P mode control
- E mode control
- 75 A alternator
- Dry-type air filter with clean dust cup
- Cartridge-type engine oil filter
- Cartridge-type fuel filter
- Water filter
- Radiator, air cooler and oil cooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system
- Overheat prevention device

HYDRAULIC SYSTEM

- Engine speed sensing system
- E-P control system
- OHS (Optimum Hydraulic System)
- FPS (Fuel-saving Pump System)
- Swing/boom priority mode system
- Heavy lifting system
- Boom mode selector system
- Forced-lubrication and forced cooling pump drive system
- Control valve with main relief valve
- Line filter (Delivery filter)
- Suction filter
- Full-flow filter
- Pilot filter
- Pump drain filter

CAB

All-weather sound-suppressed steel integrated cab with headguard (OPG Level II(ISO) conforming), laminated glass windshield, reinforced/tinted (green color) glass side and rear windows, intermittent wiper interlocked with front windshield washer, adjustable reclining seat with adjustable armrests, footrest, electrical horn, auto-tuning AM-FM radio with digital clock, seat belt, cigarette lighter, ashtray, parcel pocket, glove compartment, floor mat, auto-idle switch, evacuation hammer, auto air conditioner with defroster, hot and cool box, engine control dial, pilot control shut-off lever, LED room lamp.

MONITOR SYSTEMS

- Meters:
 - Hour meter, engine coolant temperature gauge and fuel gauge, auto-idle, indicator, lubrication mode indicator.
- Warning indicators:
 - Radiator water level, engine oil level, hydraulic oil level, fuel level, auto lubrication, air-filter restriction, pump transmission oil pressure, alternator, over heat, engine oil pressure, engine stop, preheat and engine warning.

DATA LOGGING SYSTEM

- DLU (Data-logging unit) continuously records performance of the engine and the hydraulic system. The record can be down-loaded by PDA (Palm).

LIGHTS

- 2 working lights
- 2 cab lights
- 1 step light
- 2 counterweight lights

UPPERSTRUCTURE

- Undercover
- 17 500 kg counterweight
- Electric grease gun with hose reel
- Centralized lubrication system for swing bearing
- Control valves with main relief valves and port relief valves
- Slow return orifices and make up valves for cylinder circuits

UNDERCARRIAGE

- Spring-set/hydraulic-released disc type parking brake
- Hydraulic (grease) track adjuster with shock absorbing recoils spring
- Travel motor cover
- Track and idler guards

MISCELLANEOUS

- Standard tool kit
- ISO conforming stairs and handrails
- Wide side walk
- Auto-lubrication system for front-attachment
- 12 V power terminal board
- Slip resistance tapes
- Elevated cab (for Loading Shovel)

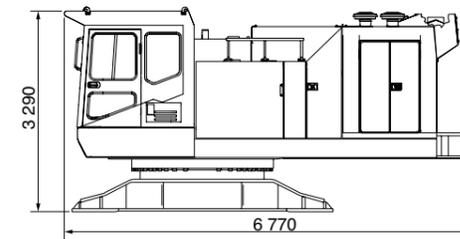
- Easily assembled owing to local assembling system requiring no welding

UPPERSTRUCTURE

Unit: mm

Upperstructure

Weight : 35 000 kg



Width : 3 500

Counterweight

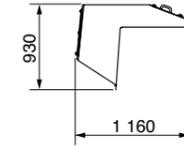
Weight : 17 500 kg



Width : 3 450

Muffler cover

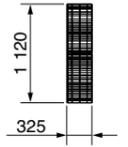
Weight : 100 kg



Width : 1 390

Side step

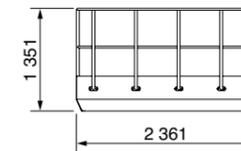
Weight : 18.6 kg



Width : 110

Side walk for backhoe

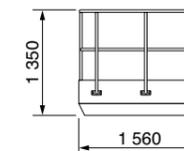
Weight : 213 kg



Width : 1 040

Side walk for loading shovel

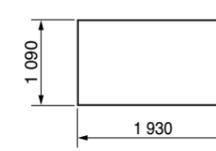
Weight : 176 kg



Width : 1 050

High cab kit for loading shovel (Optional equipment for backhoe)

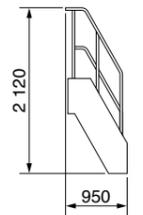
Weight : 590 kg



Width : 1 100

Step for loading shovel

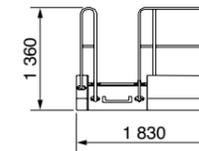
Weight : 126 kg



Width : 1 020

Fender (left rear side)

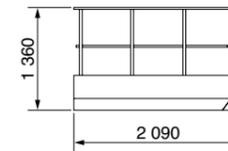
Weight : 144 kg



Width : 798

Fender (left rear side)

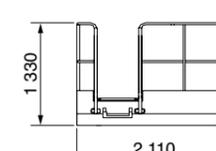
Weight : 160 kg



Width : 644

Side walk

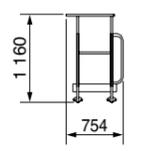
Weight : 180 kg



Width : 834

Side walk

Weight : 18 kg



Width : 192

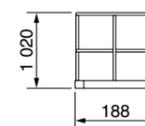
OPTIONAL EQUIPMENT

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

- Air-suspension seat
- Travel motion alarm device
- High cab kit (for Backhoe)
- Full track guard
- Slide ladder
- Sun visor

Handrail

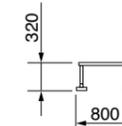
Weight : 23 kg



Width : 680

Handrail

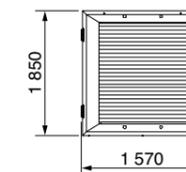
Weight : 4.6 kg



Width : 50

Radiator cover

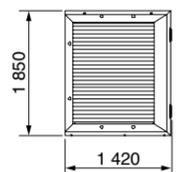
Weight : 89 kg



Width : 80

Oil cooler cover

Weight : 83 kg



Width : 80

TRANSPORTATION

UNDERCARRIAGE

Unit: mm

Side frame

Weight : 15 200 kg x 2

Traction device cover

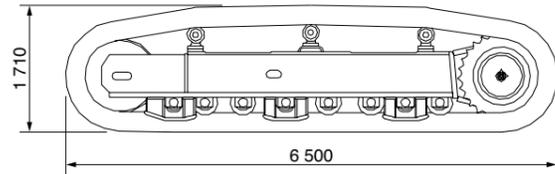
Weight : 24 kg x 2

Steps

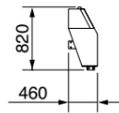
Weight : 13 kg x 2

Ladder

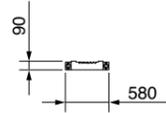
Weight : 20 kg



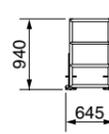
Width : 700



Width : 460



Width : 125

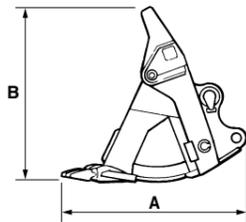


Width : 300

LOADER ATTACHMENT

Unit: mm

Bucket

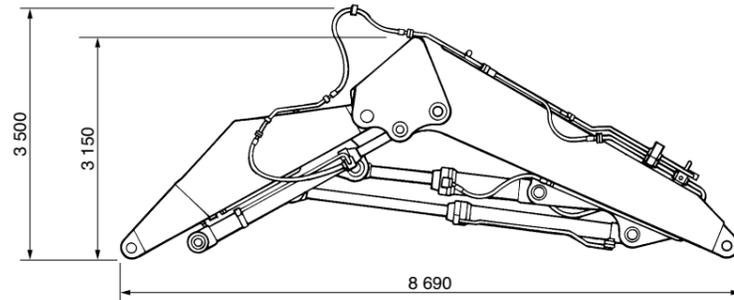


| Bucket capacity | A | B | Max. Width | Weight |
|--------------------|----------|----------|------------|----------|
| 5.9 m ³ | 2 770 mm | 2 480 mm | 2 690 mm | 9 780 kg |
| 6.5 m ³ | 2 770 mm | 2 680 mm | 2 890 mm | 9 200 kg |

Boom & arm assembly

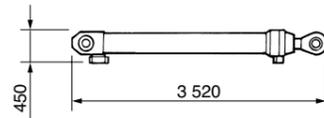
Weight : 15 600 kg

Width : 1 620



Boom cylinders

Weight : 1 170 kg x 2



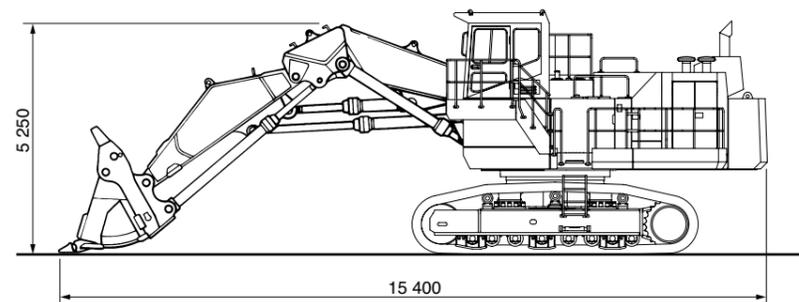
OVERALL

Unit: mm

LOADING SHOVEL

Weight : 114 000 kg

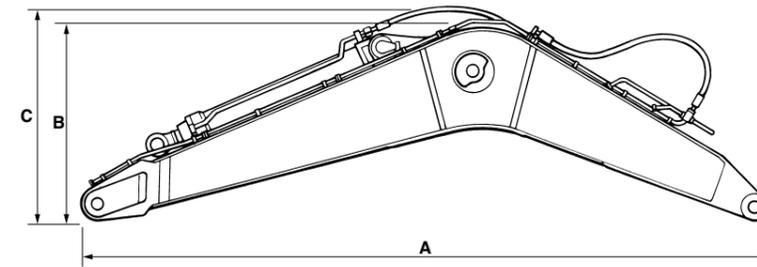
Width : 5 470



BACKHOE ATTACHMENT

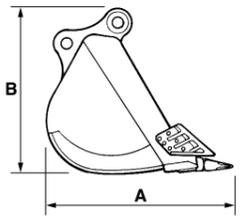
Unit: mm

Boom

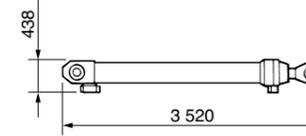


| | Boom length | A | B | C | Width | Weight |
|------------------|-------------|----------|----------|----------|----------|-----------|
| EX1200-6 | 9.0 m | 9 400 mm | 2 970 mm | 3 260 mm | 1 460 mm | 12 500 kg |
| EX1200-6 BE-boom | 7.55 m | 7 960 mm | 3 270 mm | 3 440 mm | 1 460 mm | 11 500 kg |

Bucket



Boom cylinders

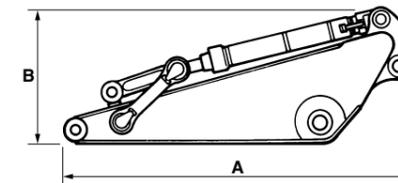


Weight : 1 130 kg x 2

| SAE, PCSA heaped | Capacity CECE heaped | A | B | Width | Weight | Type |
|--------------------|----------------------|----------|----------|----------|----------|------|
| | | | | | | |
| 5.2 m ³ | 4.6 m ³ | 2 660 mm | 2 210 mm | 2 120 mm | 4 910 kg | ◎ |
| 5.2 m ³ | 4.6 m ³ | 2 660 mm | 2 210 mm | 2 000 mm | 5 930 kg | ● |
| 5.8 m ³ | 5.1 m ³ | 2 590 mm | 2 240 mm | 2 220 mm | 6 930 kg | ● |
| 6.7 m ³ | 5.9 m ³ | 2 820 mm | 2 220 mm | 2 400 mm | 6 650 kg | ◎ |

●:Rock bucket ◎:General purpose bucket

Arm

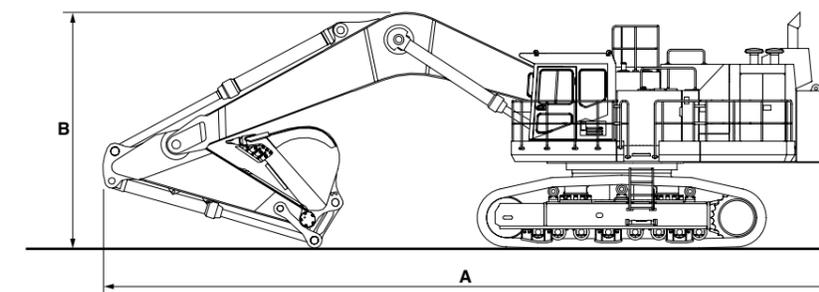


| | Arm length | A | B | Width | Weight |
|------------------|------------|----------|----------|--------|----------|
| EX1200-6 | 3.6 m | 5 120 mm | 1 890 mm | 960 mm | 6 130 kg |
| EX1200-6 BE-boom | 3.4 m | 4 950 mm | 1 980 mm | 960 mm | 6 300 kg |

OVERALL

Unit: mm

BACKHOE



| | A | B | Width |
|------------------|-----------|----------|----------|
| EX1200-6 | 15 970 mm | 5 770 mm | 5 430 mm |
| EX1200-6 BE-boom | 14 580 mm | 5 970 mm | 5 430 mm |

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.

