

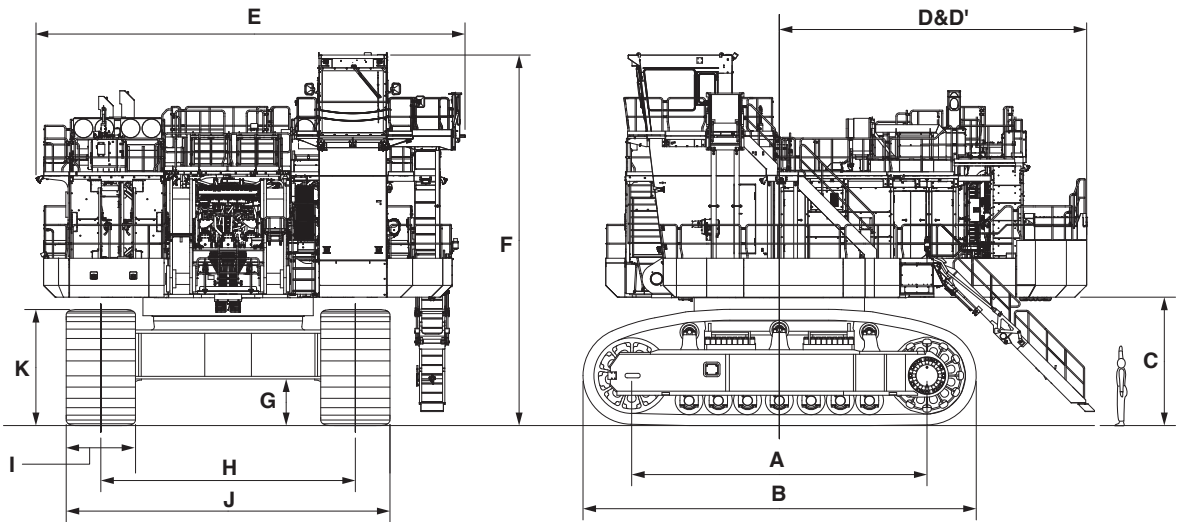
Hitachi Construction Machinery Group

LANDCROS

Japanese Excellence—Reliable Solutions

EX8000

SPECIFICATIONS



Illustrations show(Cummins FCO) diesel engine type.

A	Distance between tumbler	7 900 mm (25 ft 11 in)
B	Undercarriage length	10 500 mm (34 ft 5 in)
C	Counterweight clearance	3 430 mm (11 ft 3 in)
D	Rear-end swing radius	8 480 mm (27 ft 10 in)
D'	Rear-end length	8 210 mm (26 ft 11 in)
E	Overall width of upperstructure	11 460 mm (37 ft 7 in)
F	Overall height of cab	9 900 mm (32 ft 6 in)
G	Min. ground clearance	1 250 mm (4 ft 1 in)
H	Track gauge	6 800 mm (22 ft 4 in)
I	Track shoe width	1 845 mm (6 ft 1 in)
J	Undercarriage width	8 645 mm (28 ft 4 in)
K	Track height	3 100 mm (10 ft 2 in)

HYDRAULIC EXCAVATOR

EX8000-7B with Diesel Engine (Tier 4 Final)	Engine Gross Power :	Cummins : 2 × 1 450 kW (1 940 HP)
		MTU : 2 × 1 500 kW (2 010 HP)
	Operating Weight :	Cummins : Loading Shovel : 864 000 kg (1 906 000 lb)
		Backhoe : 866 000 kg (1 910 000 lb)
		MTU : Loading Shovel : 862 000 kg (1 900 000 lb)
		Backhoe : 864 000 kg (1 904 000 lb)
EX8000-7 with Diesel Engine (FCO)	Engine Gross Power :	Cummins : 2 × 1 450 kW (1 940 HP)
		MTU : 2 × 1 450 kW (1 940 HP)
	Operating Weight :	Cummins : Loading Shovel : 861 000 kg (1 898 000 lb)
		Backhoe : 863 000 kg (1 902 000 lb)
		MTU : Loading Shovel : 858 000 kg (1 891 000 lb)
		Backhoe : 860 000 kg (1 896 000 lb)
EX8000-7E with Electric Motor	Power Output :	2 × 1 200 kW (1 610 HP)
	Loading Shovel Bucket :	(ISO 7546:1983 Heaped 2 : 1) 43.0 - 45.0 m³ (56.2 - 58.9 yd³)
	Backhoe Bucket :	(ISO 7451:2007 Heaped 1 : 1) 48.0 - 52.0 m³ (62.8 - 68.0 yd³)

Bucket Capacity

SPECIFICATIONS

EX8000-7

ENGINE

Model	Cummins QSKTA60-CE
Emission certification	U.S. EPA Tier 4 Final
Type	Water-cooled, 4-cycle, 16-cylinder turbo-charged and after-cooled, direct injection chamber-type diesel engine, urea SCR system
Rated power @1 800 min ⁻¹ (rpm)	
ISO 14396	2 × 1 450 kW (1 940 HP)
Maximum torque	2 × 8 364 N·m (6 169 lbf·ft) at 1 500 min ⁻¹ (rpm)
Piston displacement	2 × 60.0 L (2 × 3 660 cu in)
Bore and stroke	159 mm × 190 mm (6.3 in × 7.5 in)
Starting system	24 V electric motor
Batteries	8 × 12 V, 8 × 185 AH (20 hr)

Model	Cummins QSKTA60-CE
Emission certification	Fuel consumption optimized
Type	Water-cooled, 4-cycle, 16-cylinder turbo-charged and after-cooled, direct injection chamber-type diesel engine
Rated power @1 800 min ⁻¹ (rpm)	
ISO 14396	2 × 1 450 kW (1 940 HP)
Maximum torque	2 × 8 364 N·m (6 169 lbf·ft) at 1 500 min ⁻¹ (rpm)
Piston displacement	2 × 60.0 L (2 × 3 660 cu in)
Bore and stroke	159 mm × 190 mm (6.3 in × 7.5 in)
Starting system	24 V electric motor
Batteries	8 × 12 V, 8 × 185 AH (20 hr)

Model	MTU 12V 4000 C35
Emission certification	U.S. EPA Tier 4 Final
Type	Water-cooled, 4-cycle, 12-cylinder 2-stage turbo-charged and aftercooled, direct injection chamber-type diesel engine, Miller cycle, Cooled EGR
Rated power @1 800 min ⁻¹ (rpm)	
ISO 14396	2 × 1 500 kW (2 010 HP)
Maximum torque	2 × 9 588 N·m (7 072 lbf·ft) at 1 500 min ⁻¹ (rpm)
Piston displacement	2 × 57.2 L (2 × 3 490 cu in)
Bore and stroke	170 mm × 210 mm (6.7 in × 8.3 in)
Starting system	24 V electric motor
Batteries	8 × 12 V, 8 × 185 AH (20 hr)

Model	MTU 12V 4000 C33
Emission certification	Fuel consumption optimized
Type	Water-cooled, 4-cycle, 12-cylinder turbo-charged and after-cooled, direct injection chamber-type diesel engine
Rated power @1 800 min ⁻¹ (rpm)	
ISO 14396	2 × 1 450 kW (1 940 HP)
Maximum torque	2 × 9 231 N·m (6 809 kgf·m) at 1 500 min ⁻¹ (rpm)
Piston displacement	2 × 57.2 L (2 × 3 490 cu in)
Bore and stroke	170 mm × 210 mm (6.7 in × 8.3 in)
Starting system	24 V electric motor
Batteries	8 × 12 V, 8 × 185 AH (20 hr)

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.
- OHS (Optimum Hydraulic System)
16 main pumps and 8 valves system enable both independent and combined operations of all functions.
- FPS (Fuel-saving Pump System)
FPS minimizes energy loss with superior performance in fine control.
- Auto-idling system for saving fuel and reducing noise.
- Hydraulic drive cooling-fan system for oil cooler.
- Hydraulic drive cooling-fan system for radiator.
- Forced-lubrication and forced-cooling pump drive system.
- Regeneration circuit for boom down.

Main pumps	16 variable-displacement, axial piston pumps for front attachment, travel and swing
Max. oil flow	16 × 500 L/min (16 × 132 US gal/min)
Pilot pump	2 gear pump
Max. oil flow	2 × 110 L/min (2 × 29 US gal/min)

Relief Valve Settings

Implement circuit	29.4 MPa (4 260 psi)
Swing circuit	29.4 MPa (4 260 psi)
Travel circuit	29.4 MPa (4 260 psi)
Pilot circuit	4.0 MPa (580 psi)

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

	Quantity	Bore	Rod diameter
Boom	2	480 mm (1 ft 7 in)	340 mm (1 ft 1 in)
Arm	2	390 mm (1 ft 3 in)	270 mm (10.6 in)
Bucket	2	390 mm (1 ft 3 in)	270 mm (10.6 in)
Dump	2	310 mm (1 ft)	180 mm (7.1 in)

Backhoe

	Quantity	Bore	Rod diameter
Boom	2	480 mm (1 ft 7 in)	340 mm (1 ft 1 in)
Arm	2	420 mm (1 ft 5 in)	300 mm (11.8 in)
Bucket	2	360 mm (1 ft 2 in)	260 mm (10.2 in)

Hydraulic Filters

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

	Quantity	
Full flow filter	10	10 μm
High pressure strainer	16	120 μm
(In main & swing pump delivery line)		
Drain filter	1	10 μm
(For all plunger type pumps & motors)		
By-pass filter	2	5 μm
(In oil cooler by-pass line)		
Pilot filter	2	10 μm

These filters are centralized in arrangement for facilitating maintenance.

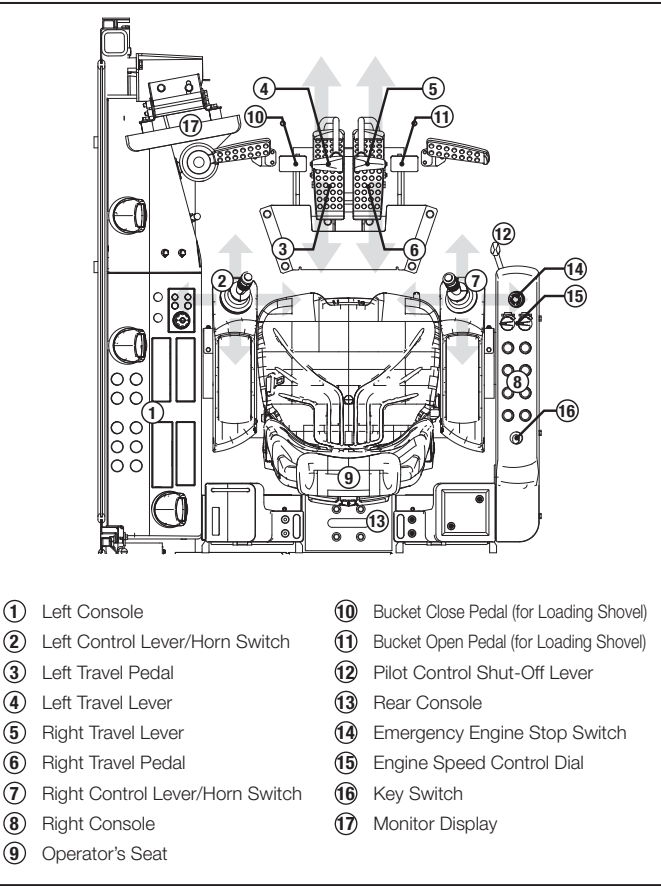
CONTROLS

2 Implement Levers

Electric joystick control levers. 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.



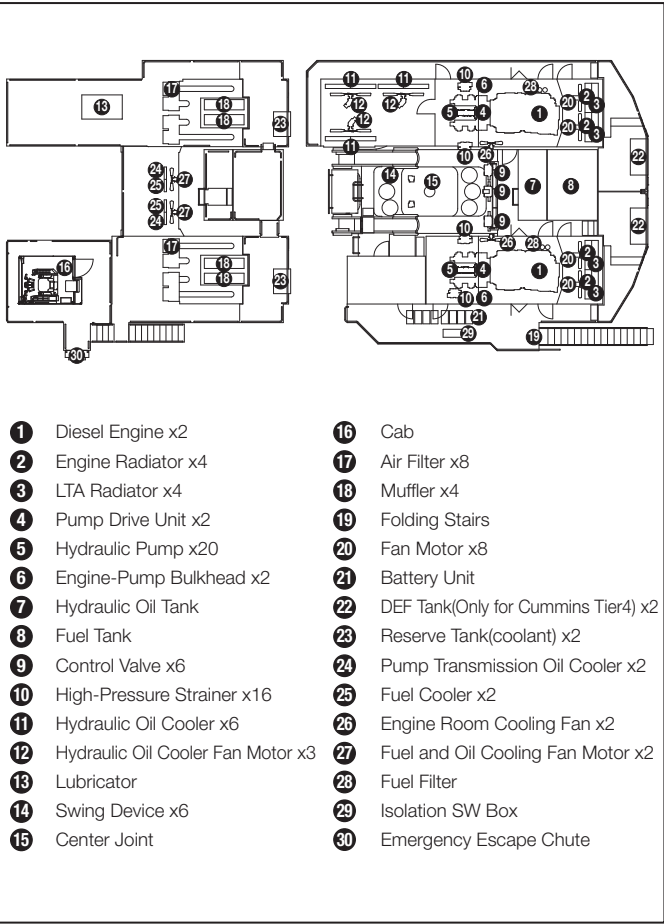
UPPERSTRUCTURE

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 layout of deck machinery. Sidewalks provide easy access to engine, hydraulic and electrical components. ISO-met stairs and handrails. Sidewalks and stairs are provided with skid-resistant plates.



Swing Device

6 high-torque, axial-piston motors with two-stage planetary gear bathed in oil. Swing circle with dirt seals is a heavy-duty, triple-row, cylindrical roller bearing. Induction-hardened internal swing circle gear and pinion immersed in lubricant. Parking brake of springset/hydraulic-released disc type. This parking brake is manually releasable.

Swing speed	3.9 min ⁻¹ (rpm)
-------------------	-----------------------------

Operator's Cab

The sturdy cab, with OPG top guard level II (ISO), helps protect the operator from falling objects. Independent, pressurized, 1 800 mm (5 ft 11 in) wide, 2 150 mm (7 ft 1 in) high, roomy 7.5 m³ (9.8 yd³) cab with tinted-glass windows features all-round visibility. Air-suspension type, fully adjustable reclining seat with armrests; movable with or without front & swing control levers by slide. Instruments and control panel are within easy reach of the operator. 3 air conditioner system.

Noise level	75 dB(A) in the cab; on max. engine speed under no-load condition (Tier 4 Final Model)
-------------------	--

Eye level height	9 000 mm (29 ft 6 in)
------------------------	-----------------------

SPECIFICATIONS

EX8000-7

UNDERCARRIAGE

Tracks

Shovel-type undercarriage. Dual-flanged-type bolt linkage for side frame and X-form center 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 drive tumblers with floating seals. Opposed double-type upper rollers for easy removal of mud. Track shoes of induction-hardened cast steel with triple grousers. Specially heat-treated connection pins. Hydraulic track adjuster provided with N2 gas accumulator with relief valve. Track adjuster provided with protection device against abnormal tension. Travel motion alarm device.

Shovel-type Undercarriage

Triple grouser track shoes of induction-hardened cast steel.
Shoe width 1 845 mm (6 ft 1 in)
Numbers of Rollers and Shoes (each side)
Upper rollers 3
Lower rollers 7
Track shoes 39

Travel Device

Each track driven by high-torque, axial piston motors, allowing counter rotation of tracks. 2-stage planetary gear plus spur gears reduction device. Dual-support-type traction device. Parking brake of spring-set/ hydraulic-released disc type. This parking brake is manually releasable.
Travel speeds High : 0 to 2.0 km/h (0 to 1.2 mph)
Low : 0 to 1.4 km/h (0 to 0.9 mph)
Maximum traction force 3 010 kN (677 000 lbf)
Gradeability 28 % (16 degree) max.

WEIGHTS AND GROUND PRESSURE

Loading Shovel

Equipped with 43.0 m³ (56.2 yd³) (ISO heaped) bottom dump bucket

Shoe type	Shoe width			Operating weight	Ground pressure
Triple grousers	1 845 mm (6 ft 1 in)	Cummins	FCO	861 000 kg (1 898 000 lb)	260 kPa (37.7 psi)
			T4F	864 000 kg (1 906 000 lb)	261 kPa (37.8 psi)
		MTU	FCO	858 000 kg (1 891 000 lb)	259 kPa (37.5 psi)
			T4F	862 000 kg (1 900 000 lb)	260 kPa (37.7 psi)
		Electric		823 000 kg (1 815 000 lb)	249 kPa (36.0 psi)

Backhoe

Equipped with 11.5 m boom, 5.0 m arm, and 48.0 m³ (ISO heaped) bucket

Shoe type	Shoe width			Operating weight	Ground pressure
Triple grousers	1 845 mm (6 ft 1 in)	Cummins	FCO	863 000 kg (1 902 000 lb)	260 kPa (37.8 psi)
			T4F	866 000 kg (1 910 000 lb)	262 kPa (37.9 psi)
		MTU	FCO	860 000 kg (1 896 000 lb)	260 kPa (37.6 psi)
			T4F	864 000 kg (1 904 000 lb)	261 kPa (37.8 psi)
		Electric		835 000 kg (1 842 000 lb)	252 kPa (36.6 psi)

SERVICE REFILL CAPACITIES

EX8000-7 Cummins

	liters (US gal)
Fuel tank	14 900 L (3 940 US gal)
Engine coolant (T4F/FCO)	2 × 611 L (2 × 161 US gal) / 2 × 593 L (2 × 157 US gal)
Engine oil pan	2 × 360 L (2 × 95 US gal)
Pump drive	2 × 62 L (2 × 16 US gal)
Swing drive device	6 × 75 L (6 × 20 US gal)
Travel drive device	2 × 490 L (2 × 129 US gal)
Hydraulic system	9 700 L (2 560 US gal)
Hydraulic oil tank	3 890 L (1 030 US gal)
Grease tank	1 000 L (264 US gal)
DEF tank (only Tier 4 final specificaiton)	2 × 475 L (2 × 125 US gal)

EX8000-7 MTU

	liters (US gal)
Fuel tank	14 900 L (3 940 US gal)
Engine coolant (T4F/FCO)	2 × 639 L (2 × 169 US gal)
Engine oil pan	2 × 345 L (2 × 91 US gal)
Pump drive	2 × 62 L (2 × 16 US gal)
Swing drive device	6 × 75 L (6 × 20 US gal)
Travel drive device	2 × 490 L (2 × 129 US gal)
Hydraulic system	9 700 L (2 560 US gal)
Hydraulic oil tank	3 890 L (1 030 US gal)
Grease tank	1 000 L (264 US gal)

LOADING SHOVEL ATTACHMENTS

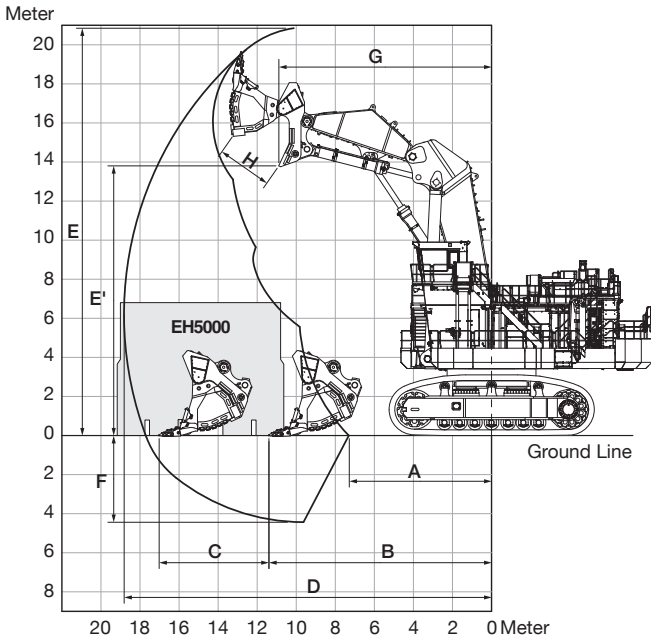
Boom and arm are of all-welded, low-stress, high-tensile strength steel full-box section design.
Autolubrication system for all pins is standard.

Loading Shovel Bucket

Type*	Capacity (heaped)	Cutting Width	No. of teeth	Weight	Materials Density
	ISO 7546 :1983 (Heaped 2:1)				
GP	43.0 m³ (56.2 yd³)	5 690 mm (18 ft 8 in)	6	69 300 kg (152 800 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
HD	43.0 m³ (56.2 yd³)	5 690 mm (18 ft 8 in)	6	69 900 kg (154 100 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
LT	45.0 m³ (58.9 yd³)	5 690 mm (18 ft 8 in)	6	70 700 kg (155 900 lb)	1 600 kg/m³ (2 700 lbs./yd³) or less

* GP : General Purpose HD : Heavy Duty LT : Light Duty

WORKING RANGES



Bucket capacity ISO 7546 :1983 (Heaped 2:1)	43.0 m³ (56.2 yd³)
A Min. digging distance	7 310 mm (23 ft 12 in)
B Min. level crowding distance	11 400 mm (37 ft 5 in)
C Level crowding distance	5 620 mm (18 ft 5 in)
D Max. digging reach	18 800 mm (61 ft 8 in)
E Max. cutting height	20 900 mm (68 ft 7 in)
E' Max. dumping height	13 800 mm (45 ft 3 in)
F Max. digging depth	4 430 mm (14 ft 6 in)
G Working radius at max. dumping height	10 900 mm (35 ft 9 in)
H Max. bucket opening width	2 780 mm (9 ft 1 in)
Arm crowding force on ground	2 440 kN (549 000 lbf)
Bucket digging force	2 300 kN (517 000 lbf)

BACKHOE ATTACHMENTS

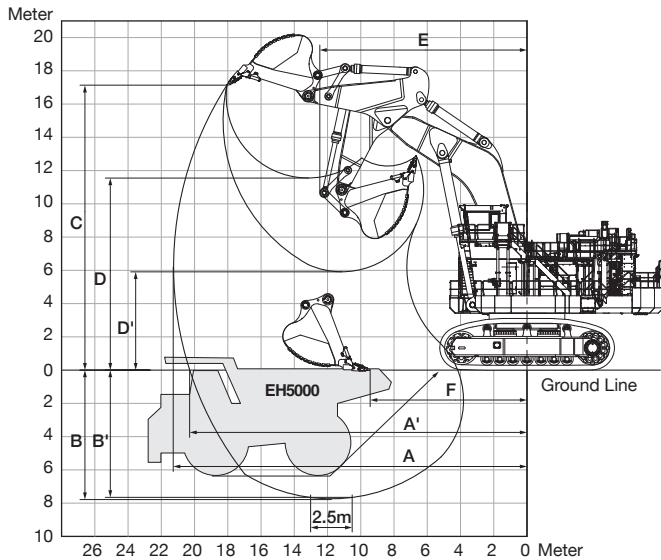
Boom and arm are of all-welded, low-stress, full-box section design. Bucket of all-welded, high-strength steel structure. Bucket/arm and arm/ boom joint pins are floating type. Replaceable thrust plates are provided with bucket/arm joint part. Autolubrication system for all pins is standard.

Backhoe Bucket

Type*	Capacity (heaped)	Cutting Width	No. of teeth	Weight	Materials Density
	ISO 7451:2007 (Heaped 1:1)				
GP	48.0 m³ (62.8 yd³)	4 890 mm (16 ft 1 in)	6	50 700 kg (111 800 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
HD	48.0 m³ (62.8 yd³)	4 890 mm (16 ft 1 in)	6	52 000 kg (114 700 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
LT	52.0 m³ (68.0 yd³)	4 890 mm (16 ft 1 in)	6	51 600 kg (113 800 lb)	1 600 kg/m³ (2 700 lbs./yd³) or less

* GP : General Purpose HD : Heavy Duty LT : Light Duty

WORKING RANGES



BE-boom length	11.5 m (37 ft 9 in)
BE-arm length	5.0 m (16 ft 5 in)
Bucket capacity ISO 7451:2007 (Heaped 1:1)	48.0 m³ (62.8 yd³)
A Max. digging reach	21 300 mm (69 ft 11 in)
A' Max. digging reach (on ground)	20 300 mm (66 ft 7 in)
B Max. digging depth	7 740 mm (25 ft 5 in)
B' Max. digging depth (2.5 m level)	7 670 mm (25 ft 2 in)
C Max. cutting height	17 100 mm (56 ft 1 in)
D Max. dumping height	11 600 mm (38 ft 1 in)
D' Min. dumping height	5 910 mm (19 ft 5 in)
E Min. swing radius	12 500 mm (41 ft)
F Min. level crowding distance	9 470 mm (31 ft 1 in)
Bucket digging force (ISO)*	1 960 kN (441 000 lbf)
Arm crowd force (ISO)*	2 100 kN (472 000 lbf)

*This is the calculated value at the loading point (Cutting Edge) conforming to ISO.

EX8000-7

STANDARD EQUIPMENT

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

ENGINE

- Auto-idle system
- Cartridge-type engine oil filter
- Cartridge-type fuel filter
- Emergency engine stop system
- Engine room cooling fan
- Fan guard
- Heavy-duty type air cleaner with dust ejector
- Hydraulic drive cooling-fan system
- Isolation-mounted engine
- Pre-lubrication system
- Radiator reserve tank
- Water filter
- 140 A alternator

HYDRAULIC SYSTEM

- Bypass filter
- Control valve with main relief valve
- Drain filter
- E-P control system
- Forced-lubrication & forced-cooling pump drive system
- FPS (Fuel-saving Pump System)
- Full-flow filter
- High-pressure strainer
- Hydraulic drive cooling-fan system
- I-OHS (Integrated Optimum Hydraulic System)
- Pilot filter
- Regeneration circuit for boom down function
- Suction filter

CAB

- Adjustable reclining seat with air suspension
- Air conditioner* with defroster
- Air horn with electric compressor
- Auto-tuning AM-FM radio with digital clock
- Evacuation hammer
- Floor mat
- Fluid-filled elastic mounts
- Footrest
- Front windshield washer
- Hot and cool box
- Laminated glass windshield (Front)
- OPG top guard level II (ISO10262)
- Parallel-link-type intermittent windshield wiper
- Pilot control shut-off lever
- Rearview mirror
- Reinforced/tinted (Green color) glass side and rear windows
- Roll screens
- Seat belt
- Storage spaces
- Trainer’s seat

MONITOR SYSTEMS

- Meters:
 - Ambient temperature
 - Clock
 - DEF gauge (only for cummins Tier4F)
 - Engine coolant temperature gauge (R).(L)
 - Engine oil pressure gauge (R).(L)
 - Engine oil temperature gauge (R).(L)
 - Fuel gauge
 - Grease gauge
 - Hour meter
 - Hydraulic oil temeperature gauge
 - Inclinometer
 - Tachometer (R).(L)

DATA LOGGING SYSTEM

- DLU (Data-Logging Unit) continuously records performance of the engine and the hydraulic system.
 - The record can be down-loaded by PC.
 - And for Fleet management system (Provided by Wenco etc.) connection**
- WIU (Wired Interface Unit)

LIGHTS

- 4 entrance halogen lights
- 12 working LED lights
- 14 maintenance halogen lights

UPPERSTRUCTURE

- Cab riser pressurizer
- Dual isolator switch
- Electronic cylinder stroke control system
- Emergency escape device
- Folding stairs with wide steps
- Hydraulic drive grease gun with hose reel
- Lockable machine covers
- Swing parking brake
- 80 400 kg (177 300 lb) counterweight (Inc. bolt etc.)

UNDERCARRIAGE

- Grease-less center joint
- Hydraulic track adjuster with N2 gas accumulator with relief valve
- Single-frange rollers
- Swing circle excess grease scraper
- Swing circle lubrication piping protection
- Travel motion alarm device
- Travel parking brake
- 1 845 mm (6 ft 1 in) triple grouser shoes

MISCELLANEOUS

- Auto-lubrication system (Lincoln) for front-attachment pins, swing bearing
- Recirculation air filter for air conditioner
- Stairs and handrails (Meeting ISO)
- Stop valve for transport and reassembly
- Ventilation air filter for air conditioner
- 12 V power terminal board

FAST-FILLING SYSTEM

- Fast-filling system for fuel, hydraulic oil, coolant, swing device oil, pump transmission oil, engine oil, and grease (Couplers not included).
 - DEF (only for Cummins Tire4F)

OPTIONAL EQUIPMENT

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

- Additional Fuel Filter (PARKER FBO-14)
- Aerial angle
- Aerial angle calibration kit
- Heater seat
- Cab Utility room
- Cold weather package
- Communication system (Alternative)**
 - GPRS communication system
 - Satellite data transmitting system
- Fast-filling couplers
- Harness (DTU)
- Hydraulic suction device
- Roll screens
- Standard tool kit
- Travel motor guard
- Travel transmission guard
- Truck under cover
- Upper slider
- 4 color monitor cameras ; 2 front and 2 rear

* Contains fluorinated greenhouse gases, Refrigerant type: HFC-134a, GWP: 1430, Amount: 3.50 kg, CO2e: 5.01 ton.
** The availability of the system depends on licensing regulations in each country.
Please contact Hitachi dealer for more information.

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.

--