

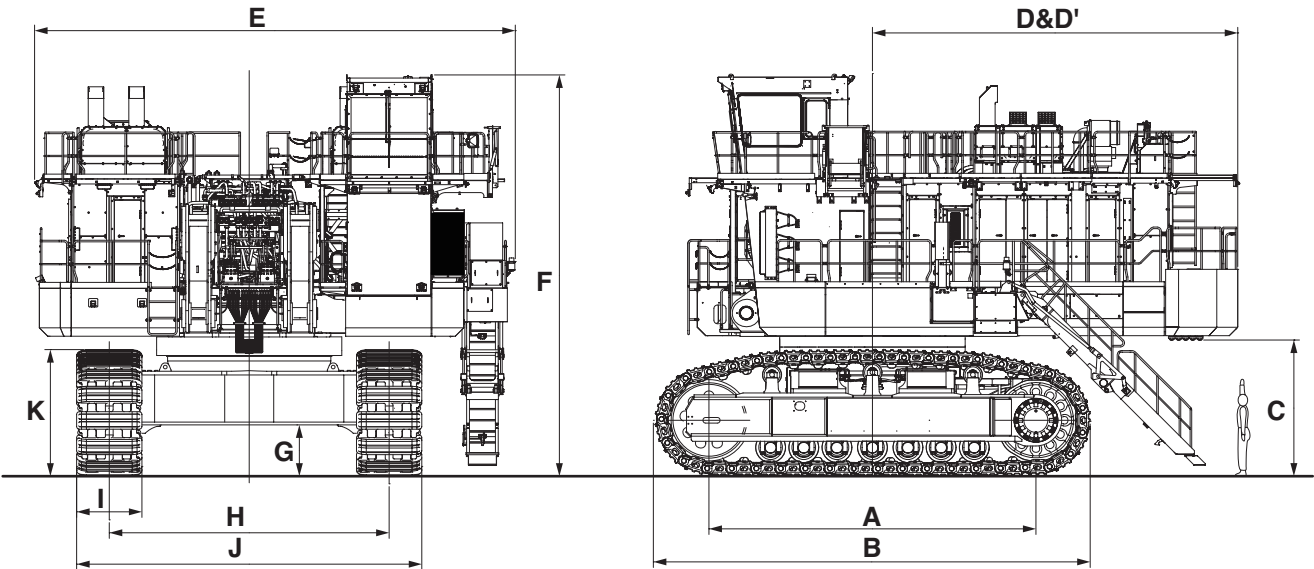
Hitachi Construction Machinery Group

LANDCROS

Japanese Excellence—Reliable Solutions

EX5600

SPECIFICATIONS



Illustrations show (Cummins Tier 4 Final) diesel engine type.

A	Distance between tumblers	7 000 mm (23 ft)
B	Undercarriage length	9 350 mm (30 ft 8 in)
C	Counterweight clearance	2 910 mm (9 ft 7 in)
D	Rear-end swing radius	7 970 mm (26 ft 2 in)
D'	Rear-end length	7 860 mm (25 ft 9 in)
E	Overall width of upperstructure	10 300 mm (34 ft)
F	Overall height of cab	8 650 mm (28 ft 5 in)
G	Min. ground clearance	1 100 mm (3 ft 7 in)
H	Track gauge	6 000 mm (19 ft 8 in)
I	Track shoe width	1 400 mm (4 ft 7 in)
J	Undercarriage width	7 400 mm (24 ft 3 in)
K	Track height	2 730 mm (9 ft)

HYDRAULIC EXCAVATOR

EX5600-7B with Diesel Engine (Tier 4 Final)	Engine Rated Power : Cummins : 2 × 1 119 kW (1 500 HP)	
	MTU : 2 × 1 150 kW (1 540 HP)	
	Operating Weight :	Cummins : Loading Shovel : 548 000 kg (1 207 000 lb)
		Backhoe : 554 000 kg (1 222 000 lb)
EX5600-7 with Diesel Engine (FCO)	MTU : Loading Shovel : 551 000 kg (1 213 000 lb)	
	Backhoe : 557 000 kg (1 228 000 lb)	
	Engine Rated Power : Cummins : 2 × 1 119 kW (1 500 HP)	
	MTU : 2 × 1 150 kW (1 540 HP)	
EX5600-7E with Electric Motor	Operating Weight :	Cummins : Loading Shovel : 544 000 kg (1 198 000 lb)
		Backhoe : 550 000 kg (1 213 000 lb)
	MTU : Loading Shovel : 549 000 kg (1 209 000 lb)	
	Backhoe : 555 000 kg (1 223 000 lb)	
Bucket Capacity	Power Output : 2 × 860 kW (1 150 HP)	
	Loading Shovel Bucket : ISO 7546:1983 (Heaped 2:1) 29.0 - 31.0 m³ (37.9 - 40.5 yd³)	
	Backhoe Bucket : ISO 7451:2007 (Heaped 1:1) 36.0 - 38.5 m³ (47.1 - 50.4 yd³)	

SPECIFICATIONS

EX5600-7

ENGINE

Model	Cummins QSKTA50-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, Fan clutch

Rated power @1 800 min ⁻¹ (rpm)	
ISO14396	2 × 1 119 kW (1 500 HP)
Maximum torque	2 × 6 570 N·m (4 850 lbf·ft)
	at 1 400 min ⁻¹ (rpm)
Piston displacement	2 × 50.0 L (3 050 cu.in)
Bore and stroke	159 mm × 159 mm (6.3 in × 6.3 in)
Starting system	24 V electric motor
Batteries	6 × 12 V, 6 × 185 AH (20 hr)

Model	Cummins QSKTA50-CE
Emission certification	Fuel consumption optimized
Type	Water-cooled, 4-cycle, 16-cylinder turbo-charged and after-cooled, direct injection chamber-type diesel engine, Fan clutch

Rated power @1 800 min ⁻¹ (rpm)	
ISO14396	2 × 1 119 kW (1 500 HP)
Maximum torque	2 × 6 570 N·m (4 850 lbf·ft)
	at 1 400 min ⁻¹ (rpm)
Piston displacement	2 × 50.0 L (3 050 cu.in)
Bore and stroke	159 mm × 159 mm (6.3 in × 6.3 in)
Starting system	24 V electric motor
Batteries	6 × 12 V, 6 × 185 AH (20 hr)

Model	MTU 12V 4000 C15
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, Fan clutch

Rated power @1 800 min ⁻¹ (rpm)	
ISO14396	2 × 1 150 kW (1 540 HP)
Maximum torque	2 × 7 351 N·m (5 420 lbf·ft)
	at 1 494 min ⁻¹ (rpm)
Piston displacement	2 × 57.2 L (3 490 cu.in)
Bore and stroke	170 mm × 210 mm (6.7 in × 8.3 in)
Starting system	24 V electric motor
Batteries	6 × 12 V, 6 × 185 AH (20 hr)

Model	MTU 12V 4000 C33R
Emission certification	Fuel consumption optimized
Type	Water-cooled, 4-cycle, 12-cylinder turbo-charged and after-cooled, direct injection chamber-type diesel engine, Fan clutch

Rated power @1 800 min ⁻¹ (rpm)	
ISO14396	2 × 1 150 kW (1 540 HP)
Maximum torque	2 × 7 351 N·m (5 420 lbf·ft) at 1 494 min ⁻¹ (rpm)
Piston displacement	2 × 57.2 L (3 490 cu.in)
Bore and stroke	170 mm × 210 mm (6.7 in × 8.3 in)
Starting system	24 V electric motor
Batteries	6 × 12 V, 6 × 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)
12 main pumps and 6 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.
- Forced-lubrication and forced-cooling pump drive system.
- Regeneration circuit for boom down.

Main pumps	12 variable-displacement, axial piston pumps for front attachment, travel and swing.
Max. oil flow	8 × 375 L/min (8 × 99.1 US gal/min), 4 × 425 L/min (4 × 112 US gal/min)
Pilot pump	2 gear pump
Max. oil flow	2 × 108 L/min (2 × 28.5 US gal/min)

Relief Valve Settings

Implement circuit	29.4 MPa (4 260 psi)
Swing circuit	24.5 MPa (3 550 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	420 mm (1 ft 5 in)	300 mm (1 ft)
Arm	1	360 mm (1 ft 2 in)	260 mm (10.2 in)
Bucket	2	340 mm (1 ft 1 in)	250 mm (9.8 in)
Dump	2	280 mm (11.0 in)	160 mm (6.3 in)
Level	1	420 mm (1 ft 5 in)	300 mm (1 ft)

Backhoe

	Quantity	Bore	Rod diameter
BE-boom	2	420 mm (1 ft 5 in)	300 mm (1 ft)
BE-arm	2	360 mm (1 ft 2 in)	260 mm (10.2 in)
Bucket	2	310 mm (1 ft)	230 mm (9.1 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	6	10 µm
High pressure strainer	12	120 µm
(In main & swing pump delivery line)		
Drain filter	1	10 µm
(For all plunger type pumps & motors)		
By-pass filter	1	5 µm
Pilot filter	2	10 µm

These filters are centralized in arrangement for facilitating maintenance.

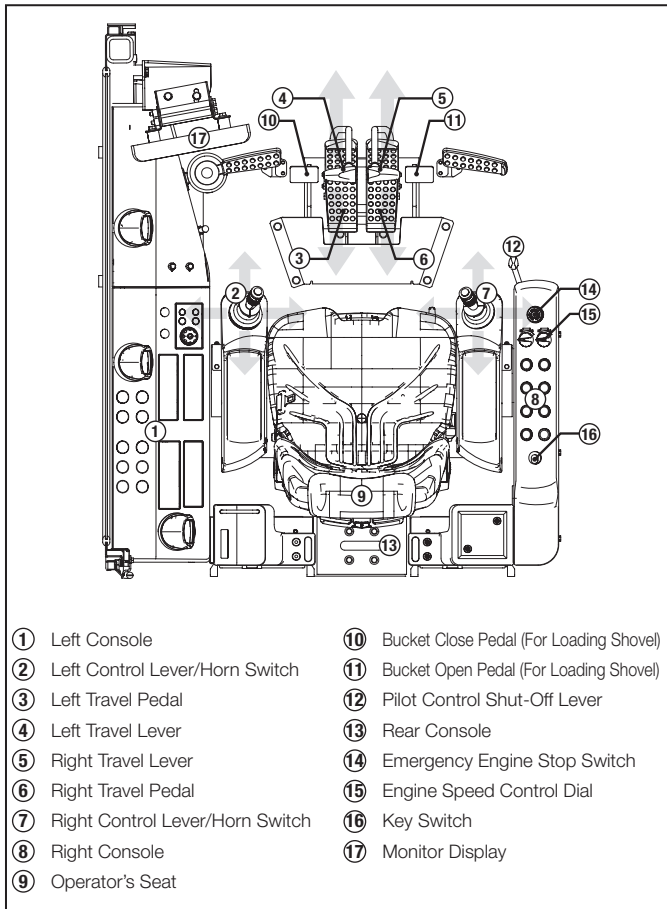
CONTROLS

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.



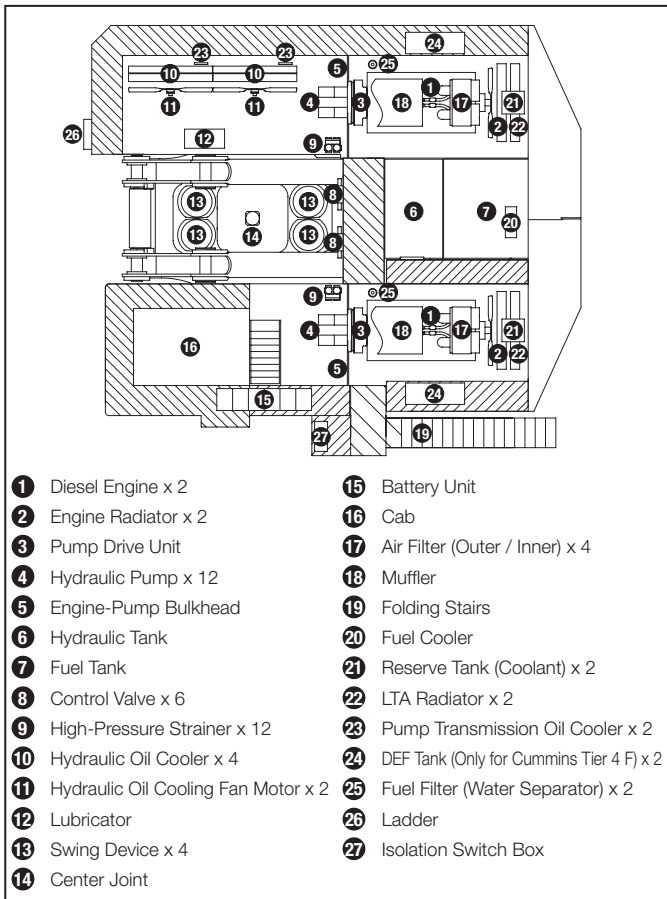
UPPERSTRUCTURE

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 engines, hydraulic and electrical components. ISO-met stairs and handrails. Sidewalks and stairs are provided with skid-resistant plates.



Swing Device

4 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 spring-set/hydraulic-released disc type. This parking brake is manually releasable. Swing speed 3.3 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
Eye level height	7 640 mm (25 ft 1 in)

SPECIFICATIONS

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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. 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 1 400 mm (4 ft 7 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 travel device. Parking brake of spring-set/hydraulic-released disc type. This parking brake is manually releasable.
Travel speeds High : 0 to 2.3 km/h (0 to 1.4 mph)
Low : 0 to 1.6 km/h (0 to 1.0 mph)
Maximum traction force 2 230 kN (501 000 lbf)
Gradeability 36 % (30 degree) max.

WEIGHTS AND GROUND PRESSURE

Loading Shovel

Equipped with 29.0 m³ (ISO heaped) bottom dump bucket

Shoe type	Shoe width			Operating weight	Ground pressure
Triple grousers	1 400 mm (4 ft 7 in)	Cummins	FCO	544 000 kg (1 198 000 lb)	243 kPa (35.2 psi)
			T4F	548 000 kg (1 207 000 lb)	245 kPa (35.5 psi)
		MTU	FCO	549 000 kg (1 209 000 lb)	245 kPa (35.2 psi)
			T4F	551 000 kg (1 213 000 lb)	246 kPa (35.7 psi)
		Electric		527 000 kg (1 162 000 lb)	236 kPa (34.2 psi)

Ground pressures are based on ISO 16754

Backhoe

Equipped with 10.1 m BE-boom, 5.0 m BE-arm, and 34.0 m³ (ISO heaped) bucket

Shoe type	Shoe width			Operating weight	Ground pressure
Triple grousers	1 400 mm (4 ft 7 in)	Cummins	FCO	550 000 kg (1 213 000 lb)	246 kPa (35.7 psi)
			T4F	554 000 kg (1 222 000 lb)	248 kPa (36.0 psi)
		MTU	FCO	555 000 kg (1 223 000 lb)	248 kPa (36.0 psi)
			T4F	557 000 kg (1 228 000 lb)	249 kPa (36.1 psi)
		Electric		531 000 kg (1 171 000 lb)	237 kPa (34.4 psi)

Ground pressures are based on ISO 16754

SERVICE REFILL CAPACITIES

Cummins

	liters (US gal)
Fuel tank	11 300 L (2 990 US gal)
Engine coolant (T4F/FCO)	2 × 476 L (2 × 126 US gal) / 2 × 476 L (2 × 126 US gal)
Engine oil pan	2 × 290 L (2 × 76.6 US gal)
Pump drive	2 × 30 L (2 × 7.9 US gal)
Swing drive device	4 × 84 L (4 × 22.2 US gal)
Travel drive device	2 × 340 L (2 × 89.8 US gal)
Hydraulic system	6 200 L (1 640 US gal)
Hydraulic oil tank	2 200 L (581 US gal)
Grease tank	673 L (178 US gal)
DEF tank (only Tier 4 final specification)	356 L (94.1 US gal)

MTU

	liters (US gal)
Fuel tank	11 300 L (2 990 US gal)
Engine coolant (T4F)	2 × 621 L (2 × 164 US gal)
Engine oil pan	2 × 330 L (2 × 87.2 US gal)
Pump drive	2 × 30 L (2 × 7.9 US gal)
Swing drive device	4 × 84 L (4 × 22.2 US gal)
Travel drive device	2 × 340 L (2 × 89.8 US gal)
Hydraulic system	6 200 L (1 640 US gal)
Hydraulic oil tank	2 200 L (581 US gal)
Grease tank	673 L (178 US gal)

LOADING SHOVEL ATTACHMENTS

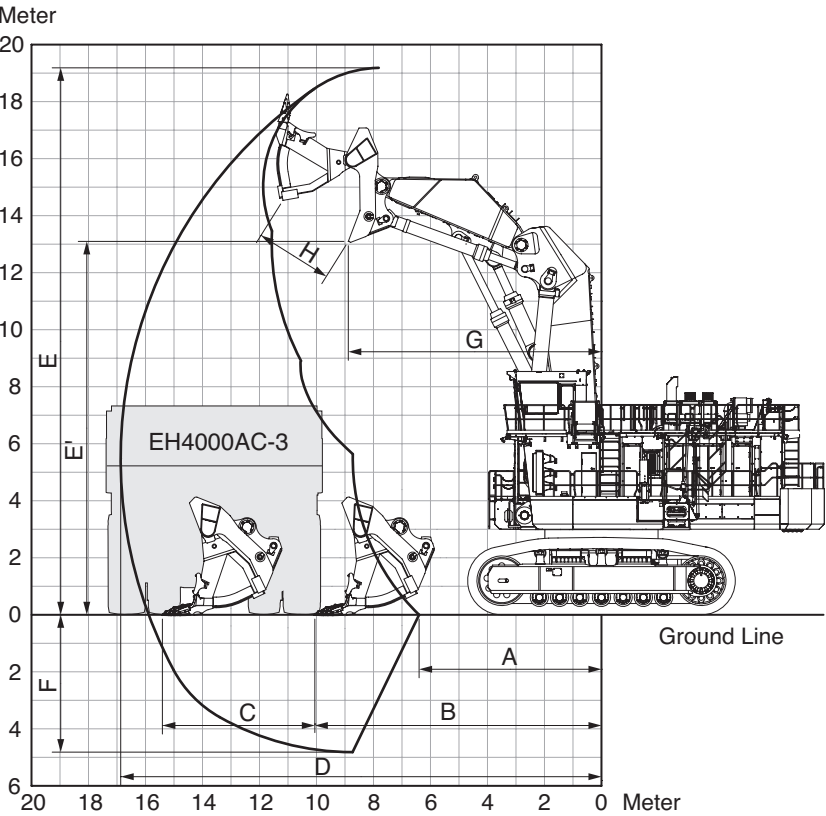
Boom and arm are of all-welded, low-stress, high-tensile strength steel full-box section design. Efficient, automatic level crowding achieved by one-lever control as the parallel link mechanism keeps the bucket digging angle constant, and level cylinder circuit maintains the bucket height constant (Auto-Leveling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

Loading Shovel Bucket

Type*	Capacity (heaped)	Cutting Width	No. of teeth	Weight	Materials Density
	ISO 7546:1983 (Heaped 2:1)				
GP	29.0 m³ (37.9 yd³)	4 860 mm (15 ft 11 in)	6	46 700 kg (103 000 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
HD	29.0 m³ (37.9 yd³)	4 860 mm (15 ft 11 in)	6	47 200 kg (104 000 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
LT	31.0 m³ (40.5 yd³)	4 860 mm (15 ft 11 in)	6	48 100 kg (106 000 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)		29.0 m³ (37.9 yd³)
A	Min. digging distance	6 580 mm (21 ft 7 in)
B	Min. level crowding distance	10 100 mm (33 ft 2 in)
C	Level crowding distance	5 310 mm (17 ft 5 in)
D	Max. digging reach	16 900 mm (55 ft 5 in)
E	Max. cutting height	19 200 mm (63 ft)
E'	Max. dumping height	13 100 mm (43 ft)
F	Max. digging depth	4 850 mm (15 ft 11 in)
G	Working radius at max. dumping height	8 900 mm (29 ft 2 in)
H	Max. bucket opening width	2 700 mm (8 ft 10 in)
Arm crowding force on ground		1 520 kN (342 000 lbf)
Bucket digging force		1 630 kN (366 000 lbf)

SPECIFICATIONS

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BACKHOE ATTACHMENTS

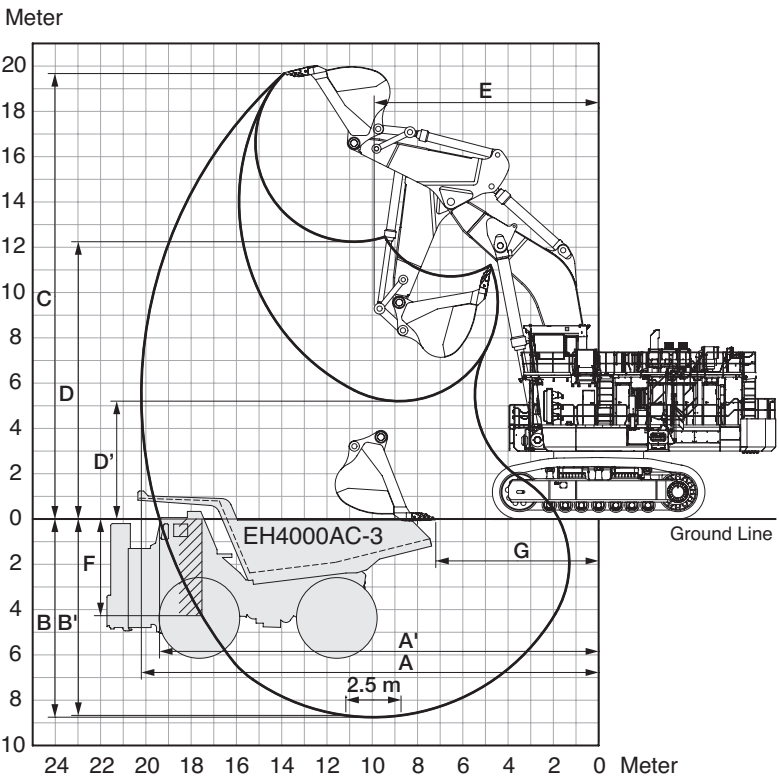
Boom and arm are of all-welded, low-stress, full-box section design.
Bucket of all-welded, high-strength steel structure.

Backhoe Bucket

Type*	Capacity (heaped)	Cutting Width	No. of teeth	Weight	Materials Density
	ISO 7451:2007 (Heaped 1:1)				
GP	36.0 m³ (47.1 yd³)	4 860 mm (15 ft 11 in)	6	38 400 kg (84 700 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
HD	36.0 m³ (47.1 yd³)	4 860 mm (15 ft 11 in)	6	39 400 kg (86 900 lb)	1 800 kg/m³ (3 030 lbs./yd³) or less
LT	38.5 m³ (50.4 yd³)	4 860 mm (15 ft 11 in)	6	39 500 kg (87 100 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	10.1 m (33 ft 2 in)
BE-arm length	5.0 m (16 ft 5 in)
Bucket capacity ISO 7451:2007 (Heaped 1:1)	36.0 m³ (47.1 yd³)
A Max. digging reach	20 200 mm (66 ft 3 in)
A' Max. digging reach (on ground)	19 300 mm (63 ft 4 in)
B Max. digging depth	8 700 mm (28 ft 7 in)
B' Max. digging depth (2.5 m level)	8 610 mm (28 ft 3 in)
C Max. cutting height	19 700 mm (64 ft 8 in)
D Max. dumping height	12 300 mm (40 ft 4 in)
D' Min. dumping height	5 260 mm (17 ft 3 in)
E Min. swing radius	9 920 mm (32 ft 7 in)
F Max. vertical wall	3 570 mm (11 ft 9 in)
G Min. level crowding distance	7 410 mm (24 ft 4 in)
Bucket digging force (ISO)*	1 490 kN (335 000 lbf)
Arm crowd force (ISO)*	1 310 kN (294 000 lbf)

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

EQUIPMENT

EX5600-7

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
- Fan guard
- Heavy-duty type air cleaner with dust ejector
- 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
- OHS (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

- 1 working halogen light
- 2 entrance halogen lights
- 10 maintenance halogen lights
- 12 working LED 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
- 48 900 kg (108 000 lb) counterweight

UNDERCARRIAGE

- Grease-less center joint
- Hydraulic track adjuster with N2 gas accumulator with relief valve
- Swing circle excess grease scraper
- Swing circle lubrication piping protection
- Travel motion alarm device
- Travel parking brake
- 1 400 mm (4 ft 7 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
- Cold weather package
- Communication system (Alternative)**
 - GPRS communication system
 - Satellite data transmitting system
- Fast-filling couplerst
- Harness (DTU)
- Hydraulic suction device

- Roll screens
- Standard tool kit
- Travel motor guard
- Travel transmission guard
- Truck under cover
- 4 color monitor cameras ; 2 front and 2 rear

* Contains fluorinated greenhouse gases, Refrigerant type: HFC-134a, GWP: 1430, Amount: 2.85 kg, CO2e: 4.08 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.

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