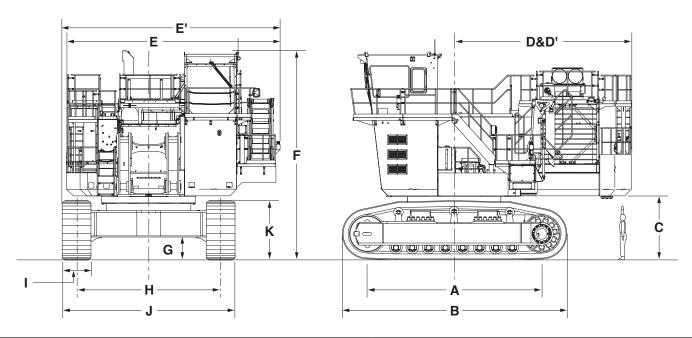
EX2500

Specifications



Α	Distance between tumblers	6 120 mm
В	Undercarriage length	7 870 mm
С	Counterweight clearance	2 140 mm
D	Rear-end swing radius	6 290 mm
D'	Rear-end length	6 190 mm
Е	Overall width of upperstructure	7 430 mm
E'	Overall width	7 560 mm
F	Overall height of cab	7 250 mm
G	Min. ground clearance	800 mm
Н	Track gauge	5 000 mm
Τ	Track shoe width	1 000 mm
J	Undercarriage width	6 000 mm
K	Track height	2 060 mm

HYDRAULIC EXCAVATOR

■ Engine Gross Power: 1 044 kW (1 400 HP)

■ Operating Weight: EX2500-6 Loading Shovel: 249 000 kg Backhoe: 248 000 kg

■ Loading Shovel Bucket: PCSA Heaped: 15.0 m³
16.5 m³

■ Backhoe Bucket: PCSA Heaped: 15.0 m³ CECE Heaped: 13.2 m³

SPECIFICATIONS

EX2500-6

ENGINE	
Model Type	Cummins QSKTA50-CE Water-cooled, 4-cycle, 16-cylinder, turbo-charged and after-cooled, direct injection chamber-type diesel engine
,	994 kW (1 351 PS) at 1 800 min-1 (rpm) 994 kW (1 333 HP) at 1 800 min-1 (rpm) 1 044 kW (1 400 HP) at 1 800 min-1 (rpm)
Maximum torque	159 mm x 159 mm 24 V electric motor 4 x 12 V , 4 x 220 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
- OHS (Optimum Hydraulic System) 6 main pumps and 3 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.

Main pumps	4 variable-displacement, axis piston pumps for front attachment and travel
Pressure setting	29.4 MPa (300 kgf/cm²)
Max. oil flow	4 X 375 L/min
Swing pump	2 variable-displacement, axis piston pumps for swinging
Pressure setting	29.4 MPa (300 kgf/cm²)
Max. oil flow	2 X 425 L/min
Pilot pump	1 gear pump
Pressure setting	3.9 MPa (40 kgf/cm²)
Max. oil flow	108 L/min

Relief Valve Settings

Implement circuit	29.4 MPa (300 kgf/cm²)
Swing circuit	27.5 MPa (280 kgf/cm²)
Travel circuit	29.4 MPa (300 kgf/cm²)
Pilot circuit	3.9 MPa (40 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 cylinder of loading shovel is provided with protector.

Cylinder Dimensions Loading shovel

	Quan.	Bore	Rod diameter
Boom	2	310 mm	230 mm
Arm	1	280 mm	210 mm
Bucket	2	250 mm	180 mm
Dump	2	215 mm	130 mm
Level	1	310 mm	230 mm

Backhoe

	Quan.	Bore	Rod diameter
Boom	2	310 mm	230 mm
Arm	1	280 mm	210 mm
Bucket	1	230 mm	170 mm

Hvdraulic Filters

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

	Qty.	
Full flow filter	3	10 µm
High pressure strainer	6	80 meshes
(In main & swing pump delivery line)		
Drain filter	1	10 µm
(For all plunger type pumps & motors)		
By-pass filter	1	5 µm
(In oil cooler by-pass line)		
Pilot filter	1	10 µm

These filters are centralized in arrangement for facilitating maintenance.

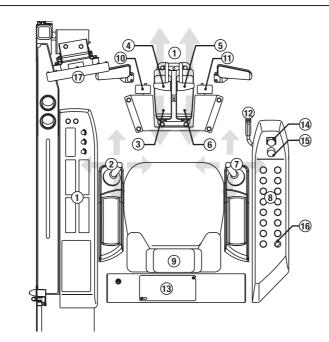
CONTROLS

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.



- 1 Left Console
- (2) Left Control Lever/Horn Switch (3) Left Travel Pedal
- 4 Left Travel Lever
- (5) Right Travel Lever
- Right Travel Pedal
- (7) Right Control Lever/Horn Switch
- 8 Right Console

- (10) Bucket Close Pedal (For Loading Shovel) (1) Bucket Open Pedal (For Loading Shovel)
- (12) Pilot Control Shut-Off Lever
- (13) Rear Console
- (14) Emergency Engine Stop Switch
- (15) Engine Speed Control Dial
- (16) Key Switch
- (17) Monitor Display
- (9) Operator's Seat

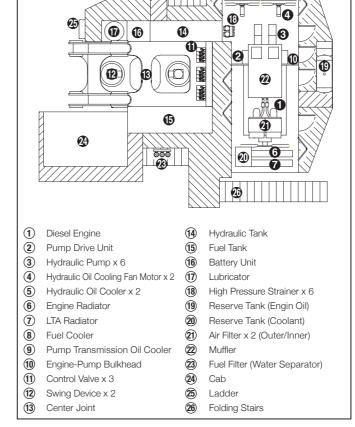
UPPERSTRUCTURE

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 provides easy access to engines, hydraulic and electrical components. ISO-meet stairs and handrails. Sidewalks and stairs are provided with skid-resistant plates.



Swing Device

2 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.

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, 1 800 mm wide, 2 150 mm high, roomy 7.5m3 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. Instrument and control panel are built in cab wall is in easy range of the operator. 3 air conditioner

Noise level	72 dB(A) in the cab; on max.
	engine speed under no-load
Eye level height	6 290 mm

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 1 000 mm

Numbers of Rollers and Shoes (each Side)

Upper rollers
Lower rollers 8
Track shoes

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 Diesel High: 0 to 2.3 km/h Low: 0 to 1.6 km/h Electric motor High: 0 to 2.2 km/h Low: 0 to 1.5 km/h Maximum traction force ... 1 330 kN (135 600 kgf) Grade ability 60 % (30 degree) continuous

WEIGHTS AND GROUND PRESSURE

Loading Shovel

Equipped with 15.0 m³ (PCSA heaped) bottom dump bucket

Shoe Type	Shoe Width	Operating weight	Ground pressure
Triple grousers	1 000 mm	249 000 kg	181 kPa (1.85 kgf/cm²)

Backhoe

Equipped with 9.0 m boom, 4.2 m arm, and 15.0 m³ (PCSA heaped)

Shoe type	Shoe Width	Operating weight	Ground pressure
Triple grousers	1 000 mm	248 000 kg	181 kPa (1.84 kgf/cm²)

SERVICE REFILL CAPACITIES

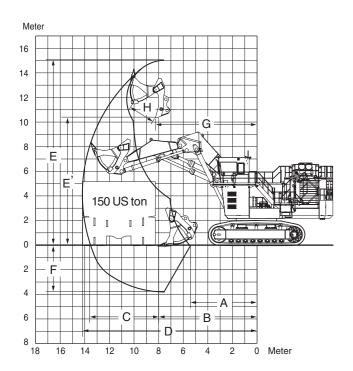
	litters
Fuel tank	5 000
Engine coolant	476
Engine oil	378
Pump drive	26
Swing device (2 units)	2 x 100
Travel device (2 units)	2 x 137
Hydraulic system	2 950
Hydraulic oil tank	1 100

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 because parallel link mechanism keeps the bucket digging angle constant, and level cylinder circuit maintains the bucket height constant (Auto-Leveling Crowd Mechanism). Auto-lubrication system for all pins is standard.

3

WORKING RANGES



Unit: mm

		O			
	Bucket Capacity (PCSA 2:1)	15.0 m³			
Α	Min. digging distance	5 340			
В	Min. level crowding distance	7 980			
С	Level crowding distance	4 980			
D	Max. digging reach	14 060			
Е	Max. cutting height	15 010			
E'	Max. dumping height	10 350			
F	Max. digging depth	3 720			
G	Working radius at max. dumping height	8 140			
Н	Max. bucket opening width	2 150			
Arı	n crowding force	918 kN (93 600 kgf)			
Bre	eakout force	843 kN (86 000 kgf)			

	Bucket Capacity (PCSA 2:1)	16.5 m³
Α	Min. digging distance	5 200
В	Min. level crowding distance	8 240
С	Level crowding distance	4 960
D	Max. digging reach	14 300
Е	Max. cutting height	15 250
E'	Max. dumping height	10 350
F	Max. digging depth	3 960
G	Working radius at max. dumping height	8 140
Н	Max. bucket opening width	2 150
Arr	n crowding force	907 kN (92 500 kgf)
Bre	eakout force	784 kN (79 900 kgf)

Bucket (PCSA heaped 2:1)

Capacity	Width	No.of teeth	Weight	Туре	Materials density
15.0 m ³	3 590 mm	6	20 190 kg	0	1 800 kg/m ³
16.5 m ³	3 590 mm	6	20 700 kg	0	1 600 kg/m ³

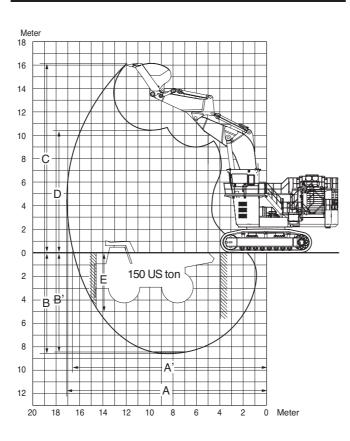
①: Bottom dump type general purpose bucket

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 joint pins are floating type.

Replaceable thrust plates are provided with bucket/arm joint part. Autolubrication system for all pins is standard.

WORKING RANGES



	Unit: mm					
BE-boom length	9.00 m					
BE-arm length	4.20 m					
A Max. digging reach	17 080					
A' Max. digging reach	(on ground)	16 530				
B Max. digging depth	8 600					
B' Max. digging depth	8 470					
C Max. cutting height		16 060				
D Max. dumping heigh	nt	10 330				
E Max. vertical wall		5 070				
Puokot digging force	ISO	832 kN (84 800 kgf)				
Bucket digging force	SAE: PCSA	751 kN (76 600 kgf)				
Arm around force	ISO	825 kN (84 100 kgf)				
Arm crowd force	SAE: PCSA	745 kN (76 000 kgf)				

Bucket

Cap	acity	Wie	dth					
PCSA (1:1) heaped	CECE (2:1) heaped	Without Witho side cutters cutter		No.of teeth	Weight	Туре	Materials density	
15.0 m³	5.0 m³ 13.2 m³ 3 180 mm -		-	5	12 400 kg	0	1 800 kg/m³	

① : General purpose bucket

EQUIPMENT

STANDARD EQUIPMENT

ENGINE • 140 A alternator

- Heavy-duty type air cleaner with dust
- Cartridge-type engine oil filter
- Cartridge-type engine oil bypass filter
- Cartridge-type fuel filter
- Water filter
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- PRELUB system
- Auto-idle system
- Emergency engine stop system

HYDRAULIC SYSTEM

- E-P control system
- OHS (Optimum Hydraulic System)
- FPS (Fuel-saving Pump System)
- Hydraulic drive cooling-fan system
- Forced-lubrication and forced cooling pump drive system
- Control valve with main relief valve
- Suction filter
- Full-flow filter
- Bypass filter
- Pilot filter
- Drain filter
- High-pressure strainer

CAB

The sturdy cab, with the top guard conforming to OPG Level II (ISO), helps protect the operator from falling objects. Fulid-filled elastic mounts.

Laminated glass windshield. Reinforced/ tinted (bronze color) glass side and rear windows. Parallel-link-type intermittent windshield wiper. Front windshield washer. Adjustable reclining seat with air suspension. Footrest. Air horn with electric compressor. Auto-tuning AM-FM radio with digital clock. Seat belt. Storage spaces. Floor mat. Air conditioner with defroster. Rearview mirror. Evacuation hammer. Emergency escape device. Trainer's seat. Pilot control shut-off lever.

MONITOR SYSTEMS

Meters:

Hourmeter. Fuel gauge. Hydraulic oil temperature gauge. Engine coolant temperature gauge. Tachometer. Engine oil pressure gauge. Engine oil temperature gauge. Battery voltage gauge. Ambient temperature.

- Pilot lamps (Green): Prelub. Auto-Idle. Travel Mode.
- Warning lamps (Red): Allternator. Engine stop. Coolant overheat. Hydraulic oil level. Auto-Lubrication. Fast-filling. Tension. Electric lever. Emergency engine stop. Top valve. Engine over run. Coolant level. Engine oil pressure. Pump transmission oil level indicator.
- Warning lamp (Yellow): Exhaust temperature. Fuel temperature. Engine warning. Hydraulic oil overheat. Stairway position. Electrical equipment box. Pump contamination. Air cleaner restriction.
- Alarm buzzers: Overheat. Engine coolant pressure. Engine coolant level. Fuel temperature. Engine oil pressure. Engine oil temperature. Air intake manifold temperature. Crank case pressure. Pump transmission oil level. Hydraulic oil level. Stop valve close. Fast-fill system panel position (option) Ladder position. Electric lever fault.

LIGHTS

• 6 working lights. 2 entrance light. 3 maintenance lights. 2 cab lights.

UPPERSTRUCTURE

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

- Lockable machine covers
- 30 000 kg counterweight
- Hydraulic drive grease gun with hose
- Folding stairs with wide steps.
- Swing parking brake

UNDERCARRIAGE

- Travel parking brake
- Travel motion alarm device
- Hydraulic track adjuster with N2 gas accumulator and relief valve
- 1 000 mm (39") triple grouser shoes

MISCELLANEOUS

- Standard tool kit
- Stairs and handrails (Meeting ISO)
- Recirculation air filter for air conditioner
- Ventilation air filter for air conditioner
- 12 V power terminal board
- Stop valve for transport and reassembly
- Auto-lubrication (Lincoln) for frontattachment pins, swing bearing, and center joint

OPTIONAL EQUIPMENT

- Wiggins couplers.
- High brightness working lights.
- · Back and right side color monitor camera.

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

- Satellite data transmitting system
- Travel motor guard.
- Travel device guard.

5

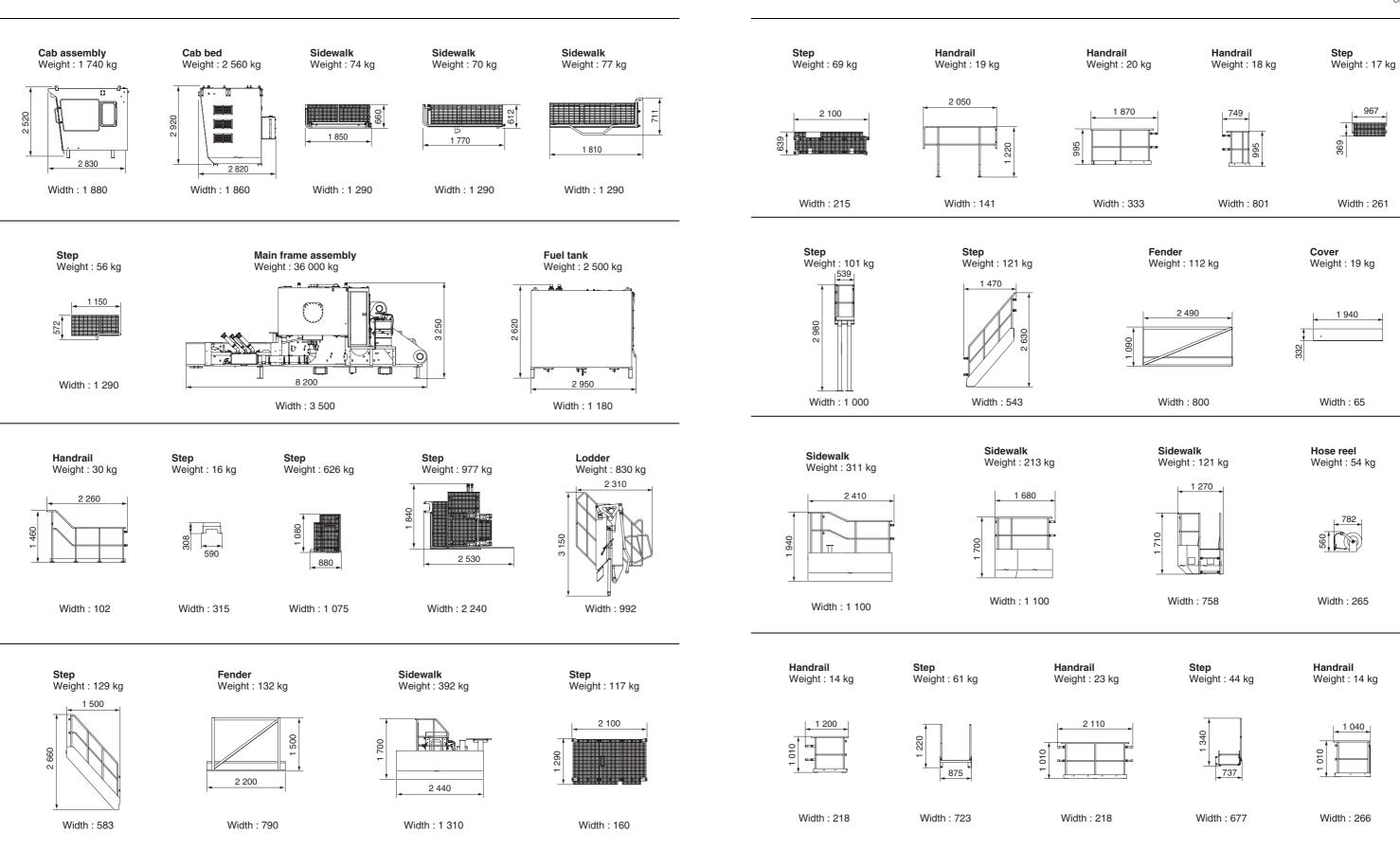
TRANSPORTATION

- Easily assembled owning to local assembling system requiring no welding.
- Overall width of below 3 500 mm during transportation.

UPPERSTRUCTURE

Unit: mm

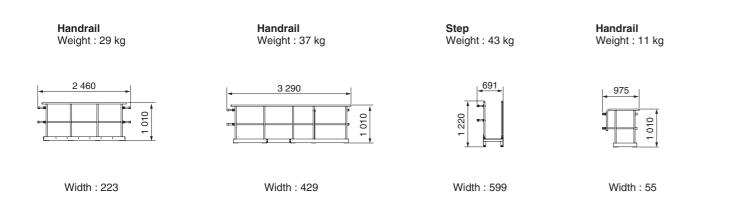
Unit: mm

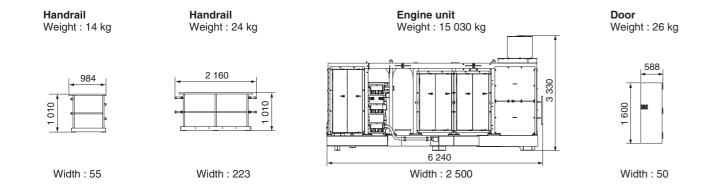


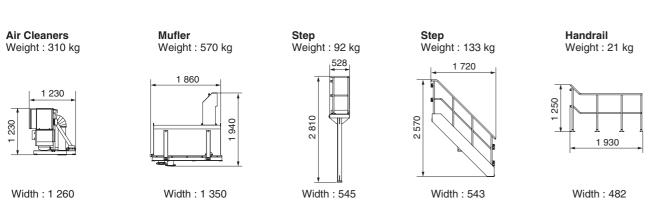
TRANSPORTATION

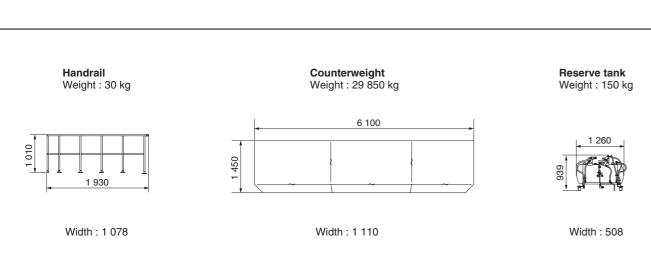
UPPERSTRUCTURE

Unit: mm



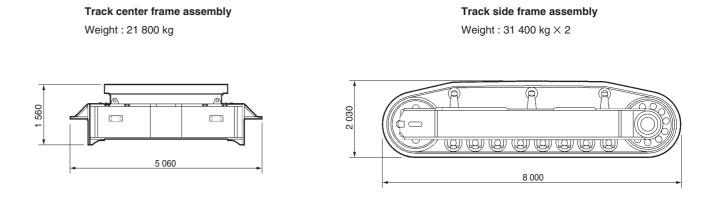




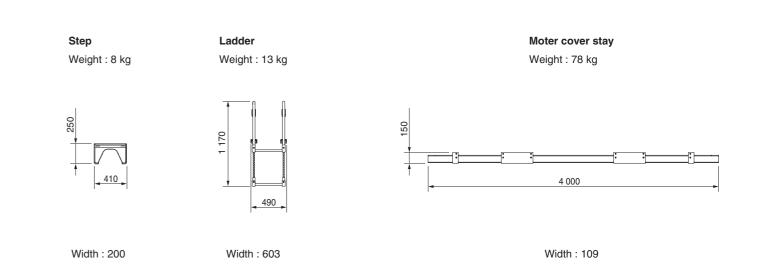


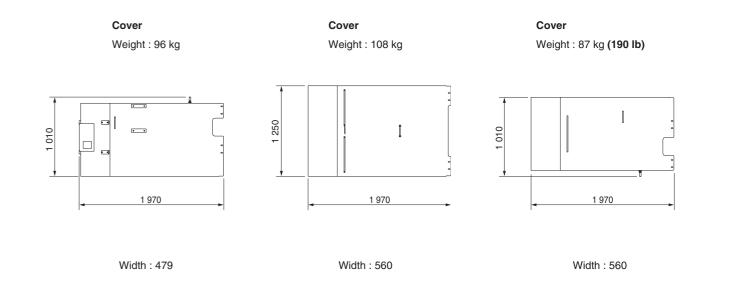
UNDERCARRIAGE Unit: mm

Width: 3 300



Width: 2 230 with trave device



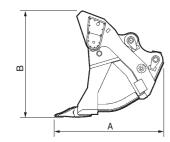


TRANSPORTATION

LOADING SHOVEL ATTACHMENTS

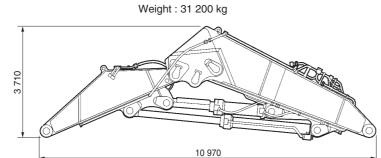
Unit: mm

Bucket assembly



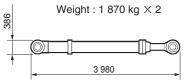
Capacity	А	В	Width	Weight
15.0 m³	3 220 mm	3 280 mm	3 860 mm	20 190 kg
16.5 m³	3 500 mm	3 320 mm	3 860 mm	20 700 kg

Boom-arm assembly

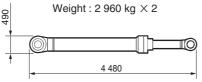


Width: 2 600

Bucket cylinders



Boom cylinders

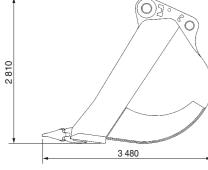


BACKHOE ATTACHMENTS

Unit: mm

Bucket assembly: 15.0 m³

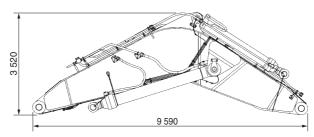
Weight: 12 400 kg



Width: 3 180

BE-boom assembly

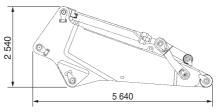
Weight: 30 000 kg



Width: 2 240

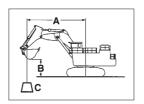
BE-arm assembly

Weight: 16 300 kg



Width: 1 640

LIFTING CAPACITIES



A: Load radius B: Load point height C: Lifting capacity

METRIC MEASURE

Rating over-side or 360 degree 🗓 Rating over-front Unit: 1 000 kg

		Load radius									At max, reach			
	Load point height	6	m	8	m	10	m	12	m	14	m	A	i max. read	JT 1
Conditions			ů		ů		Ů		ů		ů		Ů	meter
	12 m							*20.7	*20.7			*10.7	*10.7	14.8
EX2500-6	10 m							*27.0	*27.0			*10.1	*10.1	15.7
BE-boom 9.0 m	8 m							*30.5	*30.5	*23.4	*23.4	*10.0	*10.0	16.3
BE-arm 4.2 m						*45.7	*45.7	*37.9	*37.9	28.3	*29.5	*10.3	*10.3	16.5
Bucket	4 m					50.9	*54.0	36.7	*42.0	26.8	*34.4	*11.0	*11.0	16.4
PCSA: 15.0 m ³						47.6	*51.9	34.5	*43.6	25.6	34.2	*12.3	*12.3	16.0
CECE: 13.2 m ³	O (Calconici)					45.9	*49.1	33.2	*42.9	24.8	*33.2	*14.3	*14.3	15.2
Shoes 1 000 mm	-2 m			*34.2	*34.2	45.5	*50.5	32.7	*39.0	*22.6	*22.6			
	-4 m	*40.8	*40.8	*36.8	*36.8	*40.5	*40.5	*29.5	*29.5					

- 1.Ratings are based on SAE J1097.2.Lifting capacity of the EX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
- 3.The load point is a hook (not standard equipment) loaded on the back of the bucket.
 4.*Indicates load limited by hydraulic capacity.

10 11



These specifications are subject to change without notice.	
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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.

Hitachi Construction Machinery www.hitachi-c-m.com

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