

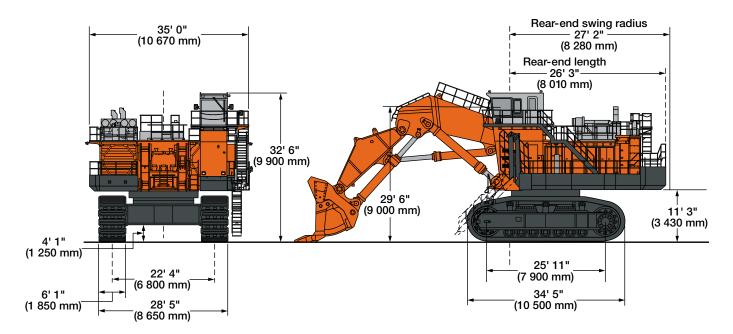
SHOVEL BUCKET CAPACITY (HEAPED): SAE(2:1): 52.3 YD.3 (40.0 M3)

OPERATING WEIGHT:
LOADING SHOVEL 1,787,900 LB. (811 000 KG)

RATED POWER: 3,888 HP (2 900 KW)

HITACHI

EX8000-6 DIMENSIONS



Engine

140 A alternator

Heavy-duty-type air cleaner with dust ejector

Cartridge-type engine oil filter

Cartridge-type engine oil bypass filter

Cartridge-type fuel filter

Water filter

Fan guard

Isolation-mounted engine

Pre-lubrication system

Auto-idle system

Emergency engine stop system

Hydraulic drive cooling-fan system

Engine oil reserve system

Engine room cooling fan

Hydraulic System

F-P control system

I-OHS (Integrated 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

All-weather sound-suppressed steel-integrated

Fluid-filled elastic mounts

Laminated glass windshield

Reinforced/tinted (green color) glass side

windows

Parallel-link-type intermittent windshield wiper

Front windshield washer

Main display with various meters, pilot indicators,

and warning indicators

Air-suspension seat with automatic weight adjusting function

Wrist-control-type electric lever with height

adjusting function

Electric travel pedals

Electric bucket open/close pedals

LED-type room lamps

Air horn with electric compressor

Auto-tuning AM-FM radio with digital clock

Seat belt

Hot and cool box

Utility space 3 ft. 7 in. (1 100 mm) \times 5 ft. 11 in.

(1 800 mm)

Floor mat

Air conditioner with defroster

Rearview mirror

Evacuation hammer

Emergency escape device

Trainer's seat

Pilot control shut-off lever

Monitor System

Meters, pilot indicators, and warning indicators

are displayed on the main display

Meters

Coolant temperature gauge

Tachometer

Engine oil pressure gauge

Engine oil temperature gauge

Hour meter

Fuel gauge

Battery voltage gauge

Hydraulic oil temperature gauge Ambient temperature

Pilot indicator (Green):

Coolant level check

Engine oil level (oil pan) check

Engine oil level (reserve tank) check

Hydraulic oil level check

Prelub

Auto-lubrication

Auto-idle

Travel mode

Warning indicator (Red): Alternator

Pump transmission oil level

Engine stop

Engine oil pressure

Coolant overheat

Coolant level

Engine over run

Fuel temperature

Exhaust temperature

Hydraulic oil level

Auto-lubrication

Stop valve

Electric lever

Fast filling

Emergency engine stop

Tension

Warning indicator (Yellow):

Engine oil pressure

Coolant overheat

Coolant level

Fuel temperature

Fngine warning

Exhaust temperature

Air cleaner restriction

Stairway position

Hydraulic oil overheat Pump contamination

Electrical equipment box

Alarm buzzers

Pump transmission oil level Hydraulic oil level

Stop valve

Electric level

Fast filling

Stairway position

Satellite data transmitting system

Data Logging System

DLU (Data Logging Unit) continuously records performance of engine and hydraulic system; the record can be downloaded by PC and PDA

Lights

12 high brightness working lights

4 entrance lights

12 maintenance lights

Upperstructure

Lockable machine covers

176,400 lb. (80 000 kg) counterweight

Hydraulic drive grease gun with hose reel

Swing parking brake Electric oil pump to draw hydraulic oil from suc-

tion and return pipe lines

Folding stairs for going up and down

Undercarriage

Travel parking brake

Travel motion alarm device

Hydraulic track adjuster with N₂ gas accumulator

and relief valve

73 in. (1 850 mm) triple grouser shoes

Single-flange rollers

Miscellaneous Electric crane (24V DC)

Standard tool kit

Stairs and handrails (meeting ISO)

Recirculation air filter for air conditioner

Additional air horn (right side)

Color monitor cameras for rear, right side, and

left lower views Ventilation air filter for air conditioner

12 V power terminal board

Stop valve for transport and reassembly Auto-lubrication system (Lincoln) for front-

attachment pins, swing bearing, and center joint

Fast-Filling System Fast-filling drop-down panel with Wiggins coupler for fuel, engine oil, engine coolant, grease, pump transmission oil, and swing device oil

Upper slider

Travel motor quard

Travel device guard

EX8000-6 SPECIFICATIONS

ENGINE	
Make	Cummins
Model	QSK60C
Туре	4 cycle
Aspiration	Water-cooled, 16 cylinder, turbocharged and after cooled, direct-injection chamber-type diesel engine
Net power @ 1,800 rpm	1,940 hp (1 450 kW) x 2
Gross power @ 1,800 rpm (SAE J1995)	1,940 hp (1 450 kW) x 2
Maximum torque @ 1,500 rpm	6,156 lbf-ft. (8 346 N-m) (853 kgf-m) x 2
Bore and stroke	6.3 in. x 7.5 in. (159 x 190 mm)
Piston displacement	3,661.4 cu. in. (60 L) x 2
Batteries	8 x 12 V, 8 x 220 AH
Starting	24-volt electric
Cold starting	Ether aided

HYDRAULIC SYSTEM

Hitachi's Electronic Total control System (ETS) achieves maximum efficiency, productivity, and operator comfort through reduced fuel consumption, lower noise levels, optimized engine-pump functions, and excellent controllability.

Engine-Pump Control (E-P)

Main pumps are regulated by electronic engine-speed sensing control system.

Integrated Optimum Hydraulic System (I-OHS)

Sixteen main pumps, 6 control valves, and 2 sets of flow-assisting valves enable both independent and combined operations of all functions.

Additional Features

Fuel-saving Pump System (FPS).

Auto-idling system.

Hydraulic-drive cooling-fan system for oil cooler and engine radiator.

Forced-lubrication and forced-cooling pump drive system.

Main Pumps

Sixteen variable-displacement, axial piston pumps for front attachment, travel, and swing.

Maximum oil flow

16 x 132.1 gal./min. (16 x 500 L/min)

Pilot Pump

Two gear pumps

Maximum oil flow

29.0 gal./min. (2 x 110 L/min)

Relief Valve Settings

Implement circuit	4,270 psi (300 kgf/cm²) (29.4 MPa)
Swing circuit	4,270 psi (300 kgf/cm²) (29.4 MPa)
Travel circuit	4,270 psi (300 kgf/cm²) (29.4 MPa)
Pilot circuit	640 psi (45 kgf/cm²) (4.4 MPa)

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms are provided for boom, arm, bucket, and dump cylinders. Stroke-end control system is provided for arm and bucket cylinders. Bucket cylinder of loading shovel is provided with protector.

Cylinder Dimensions (Loading Shovel)			
	Quantity	Bore	Rod Diameter
Boom		18.9 in. (480 mm)	13.4 in. (340 mm)
Arm		15.4 in. (390 mm)	10.6 in. (270 mm)
Bucket		15.4 in. (390 mm)	10.6 in. (270 mm)
Dump		12.2 in. (310 mm)	7.1 in. (180 mm)

Hydraulic Filters

All hydraulic circuits have high-quality hydraulic filters for protection against oil contamination and longer life of hydraulic components. Filters are centralized for convenient maintenance.

	Quantity	
Full flow filter	10	10 μm
High-pressure strainer (in main and swing pump delivery line)	16	80 meshes
Drain filter (for all plunger-type pumps and motors)	1	10 μm
Pilot filter	2	10 μm
Bypass filter (in oil cooler bypass line)	1	5 μm



EX8000-6 SPECIFICATIONS

CONTROLS

Two Implement Levers

Wrist-control-type electric lever. Right lever is for boom and bucket control, left lever for swing and arm control.

Two pedals provided for opening/closing the bottom dump bucket.

Two Travel Levers with Pedals

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

UPPERSTRUCTURE

Revolving Frame

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. Folding stairs provides easy access to the deck machinery. The sidewalk also provides easy access to engines, hydraulic, and electrical components.

SWING DEVICE

Six 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 is spring-set, hydraulic-released disc type. This parking brake is manually releasable.

Swing speed 3.2 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. The 5 ft. 11 in. (1 800 mm) width, 11 ft. 0 in. (3 360 mm) length, 7 ft. 1 in. (2 150 mm) height roomy cab with tinted-glass windows features all-round visibility.

Multi-display (color, LCD, 10.5 in. [267 mm]) for centralized information of machine status. Color monitor cameras for rear, right side, and left lower views

Pressurized 3 air conditioning system.

Noise level 75 dB (A) in the cab at maximum engine speed under no-load condition

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

JNDERCARRIAGE

Tracks

Shovel-type undercarriage. Dual-flanged-type boit linkage for side frame and X-form center frame ensures 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 specially heat-treated hardened cast steel.

Shoe width 73 in. (1 850 mm)

Number 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 counterrotation of tracks. Two-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: 0-1.2 mph (0-2.0 km/h)

 Low: 0-0.9 mph (0-1.4 km/h)

 Maximum traction force
 674,615 lbf (3 000 kN, 306 000 kgf)

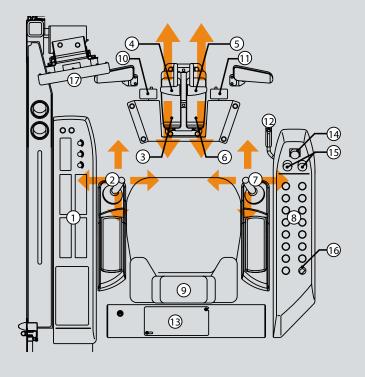
 Gradeability
 60% (30°) maximum

WEIGHTS AND GROUND PRESSURE

 $\textbf{Loading Shovel:} \ \, \textbf{Equipped with 52.3 yd.} \ \, \textbf{(40.0 m} \textbf{3)} \ \, \textbf{(heaped) bottom dump bucket}.$

Shoe Type	Shoe Width	Operating Weight	Ground Pressure
Triple grousers	73 in. (1 850 mm)	1,787,900 lb. (811 000 kg)	35.5 psi (244 kPa) (2.5 kgf/cm²)

BACKHOE CONTROL LAYOUT

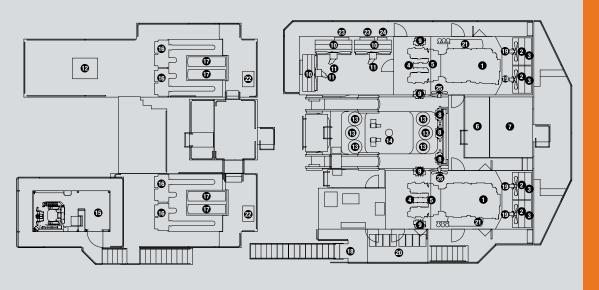


- 9. Operator's Seat
 10. Bucket Close Pedal (For Loading Shovel)
 11. Bucket Open Pedal (For Loading Shovel)
 12. Pilot Control Shut-Off Lever
 13. Rear Console
 14. Emergency Engine Stop Switch
 15. Engine Speed Control Dial

SERVICE REFILL CAPACITIES

	US Gallons	Liters	Imperial Gallons
Fuel Tank	3,936	14 900	3,278
Engine Coolant	2 x 162	2 x 614	2 x 135
Engine Oil (engine oil pan)	2 x 69	2 x 260	2 x 57
Engine Oil (reserve tank)	2 x 68	2 x 280	2 x 57
Pump Transmission Device	2 x 16.4	2 x 62	2 x 11.4
Swing Device (each side)	6 x 20	6 x 75	6 x 16.5
Travel Device	2 x 130	2 x 490	2 x 108
Hydraulic System	2,562	9 700	2,133
Hydraulic Tank	1,028	3 890	856

DECK MACHINERY LAYOUT



Courtesy of Machine. Market

EX8000-6 SHIPPING INFORMATION

EX8000-6 components are designed for ease of transportation and on-site assembly. Components can be assembled without welding.

UPPERSTRUCTURE

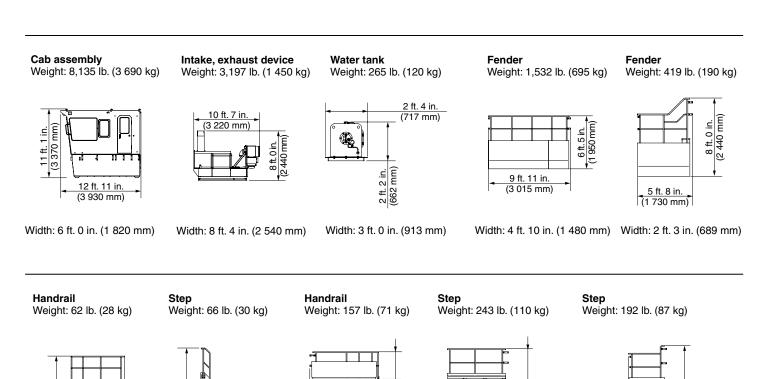
mm)

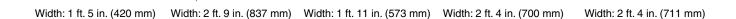
(1 430

6 ft. 8 in

(2 030 mm)

8 in.





1 010 mm

4 in 7 ft. 4 in.

(2 240 mm)

(1 310 mm)

4 ft. 4 in.

4 ft. 9 in.

(1 450 mm)

8 ft. 4 in.

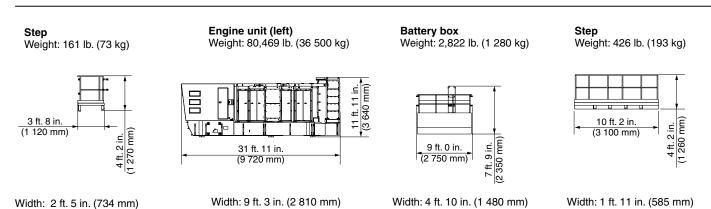
(2 540 mm)

1 ft. 3 in.

(392 mm)

560 mm)

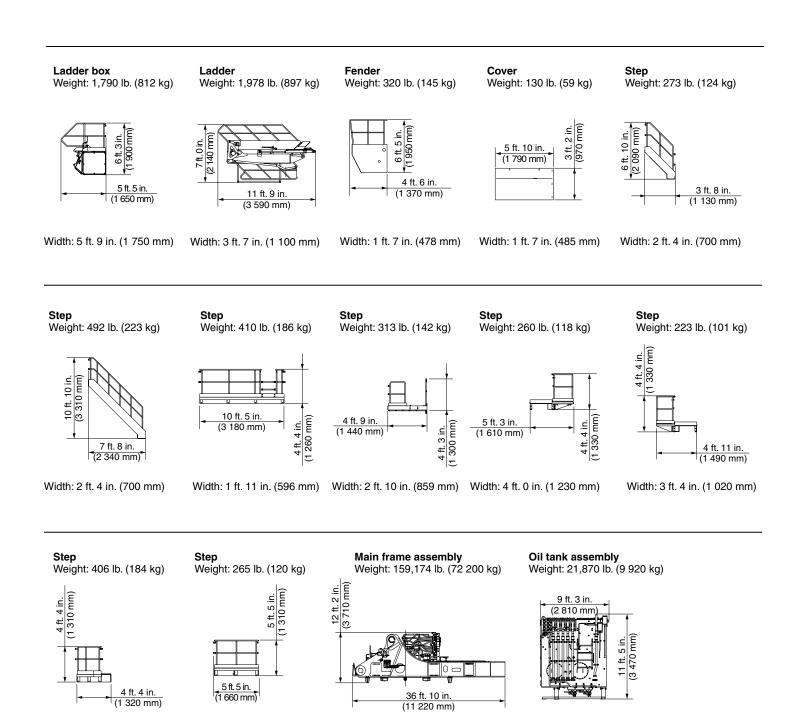
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dan 2 m (10 mm)

(1 600 mm)

3 in.



Width: 13 ft. 1 in. (4 000 mm)

Width: 4 ft. 8 in. (1 410 mm)

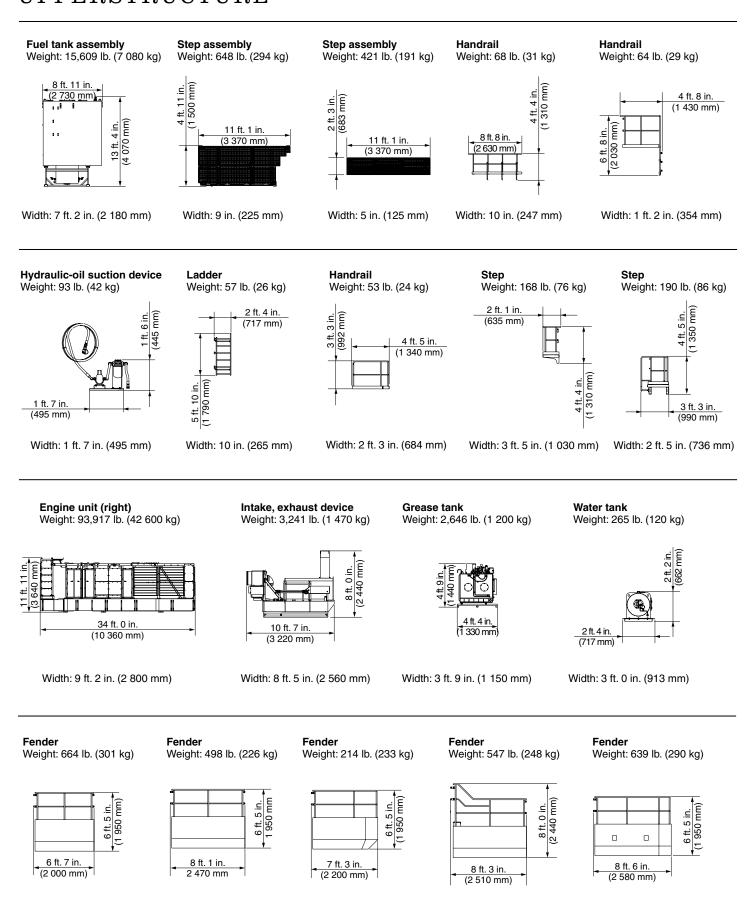
Width: 2 ft. 2 in. (672 mm)

Width: 4 ft. 8 in. (1 410 mm)

UPPERSTRUCTURE

Width: 2 ft. 3 in. (675 mm)

Width: 2 ft. 3 in. (675 mm)

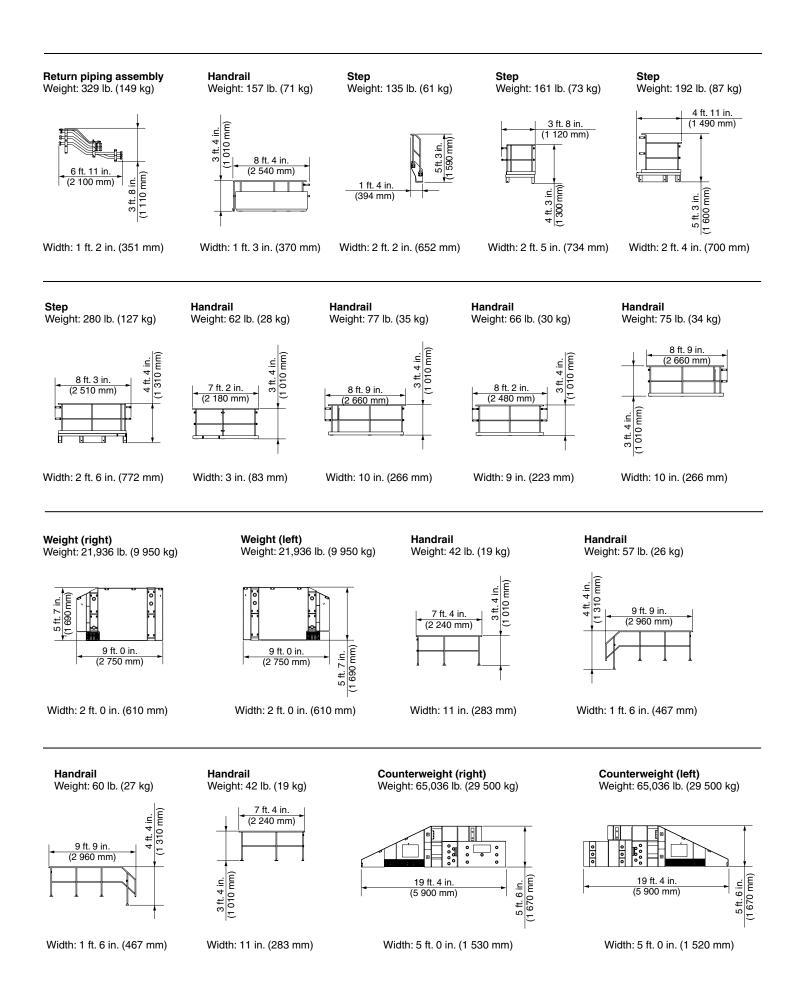


Width: 2 ft. 3 in. (682 mm)

Width: 2 ft. 3 in. (675 mm)

Courtesy of Machine. Market

Width: 2 ft. 3 in. (677 mm)

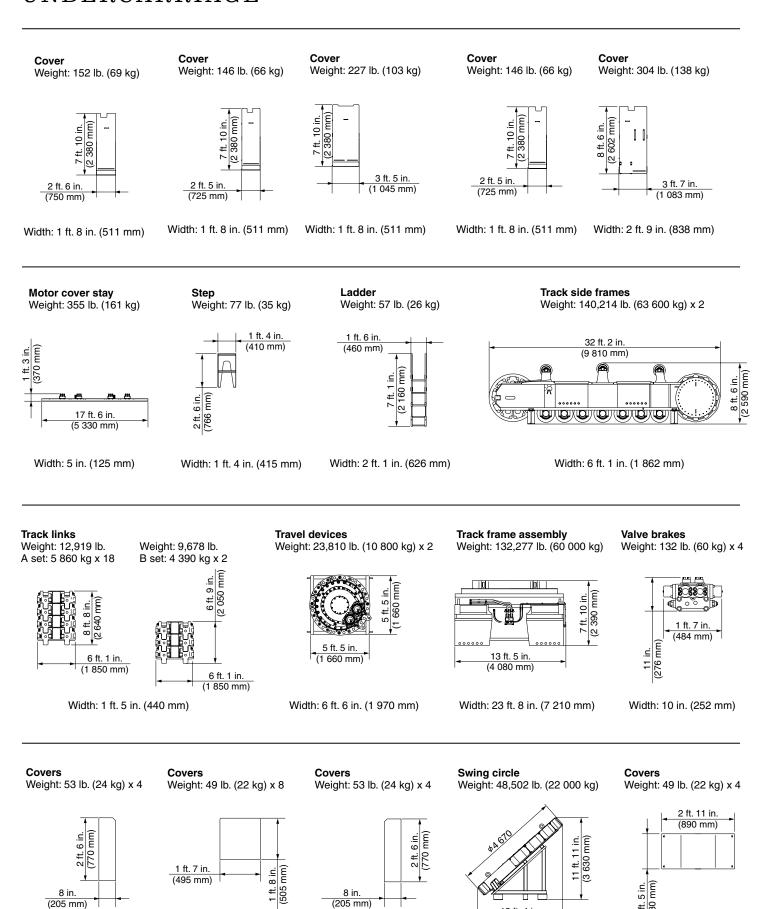


UNDERCARRIAGE

8 in.

(205 mm)

Width: 11 in. (290 mm)



8 in.

(205 mm)

Width: 11 in. (290 mm)

Width: 11 in. (290 mm)

Width: 15 ft. 4 in. (4 670 mm) Width: 2 in. (61 mm) Courtesy of Machine. Market

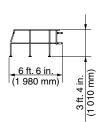
1 ft.

12 ft. 4 in. (3 760 mm)

LOADER ATTACHMENTS



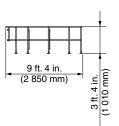
Weight: 44 lb. (20 kg)



Width: 1 ft. 5 in. (426 mm)

Handrail

Weight: 73 lb. (33 kg)



Width: 11 in. (275 mm)

Handrail

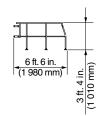
Weight: 73 lb. (33 kg)



Width: 11 in. (275 mm)

Handrail

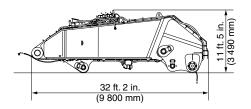
Weight: 44 lb. (20 kg)



Width: 1 ft. 5 in. (426 mm)

Boom assembly

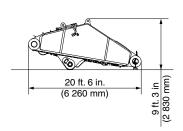
Weight: 126,104 lb. (57 200 kg)



Width: 10 ft. 8 in. (3 258 mm)

Arm assembly

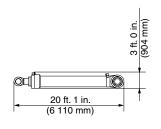
Weight: 68,564 lb. (31 100 kg)



Width: 12 ft. 0 in. (3 650 mm)

Boom cylinders

Weight: 21,429 lb. (9 720 kg) x 2



Width: 2 ft. 6 in. (760 mm)

Arm cylinders

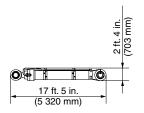
Weight: 11,067 lb. (5 020 kg) x 2



Width: 2 ft. 5 in. (725 mm)

Bucket cylinders

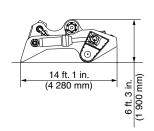
Weight: 121,916 lb. (55 300 kg) x 2



Width: 3 ft. 6 in. (1 070 mm)

Rear bucket assembly

Weight: 72,312 lb. (32 800 kg)



Width: 18 ft. 5 in. (5 620 mm)

Front bucket assembly

Weight: 57,100 lb. (25 900 kg)



Width: 18 ft. 6 in. (5 630 mm)

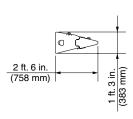
Shrouds

Weight: 761 lb. (345 kg) x 5



Width: 1 ft. 10 in. (568 mm)

Weight: 776 lb. (352 kg) x 6

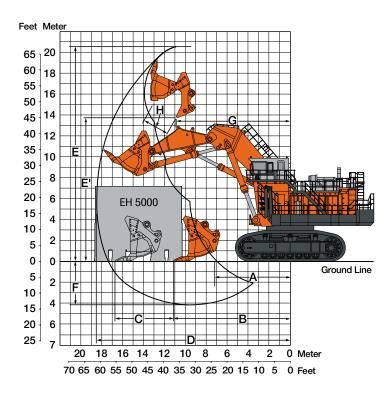


Width: 1 ft. 5 in. (430 mm)

EX8000-6 SPECIFICATIONS

LOADING SHOVEL ATTACHMENT

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



WORKING RANGES — BUCKET CAPACITY: 52.3 yd.3 (40.0 m3)		
A. Min. digging distance	23 ft. 6 in. (7 200 mm)	
B. Min. level crowding distance	36 ft. 5 in. (11 100 mm)	
C. Level crowding distance	18 ft. 4 in. (5 600 mm)	
D. Max. digging reach	60 ft. 7 in. (18 500 mm)	
E. Max. cutting height	67 ft. 3 in. (20 500 mm)	
E1. Max. dumping height	45 ft. 3 in. (13 800 mm)	
F. Max. digging depth	13 ft. 5 in. (4 100 mm)	
G. Working radius at max. dumping height	35 ft. 9 in. (10 900 mm)	
H. Max. bucket opening width	9 ft. 2 in. (2 800 mm)	
Arm crowding force	645,000 lb. (293 000 kgf) (2 870 kN)	
Breakout force	501,000 lb. (227 000 kgf) (2 230 kN)	

BUCKET (SAE HEAPED 2:1)		
Capacity	52.3 yd. ³ (40.0 m ³)	
Width	18 ft. 4 in. (5 600 mm)	
Number of Teeth		
Weight	138,000 lb. (62 500 kg)	
Туре	Bottom dump type, general purpose	
Material	3,033 lb./yd. ³ (1 800 kg/m³)	

Note: These buckets do not include any type of wear protection for sides, bottom, and inside the bucket. Please consult your local Hitachi dealer for a proper wear protection system for your application. Please do not use the buckets without proper wear protection for your application.

HITACHI

www.hitachimining.com

Specifications and design subject to change without notice.

