# MINING EXCAVATORS

HITACHI

**Reliable solutions** 

EX5600-7

Rated Power:

CUMMINS: 2 x I II9 kW (1,500 hp) MTU: 2 x I I50 kW (1,542 hp) ELECTRIC: 2 x 860 kW (1,153 hp)

FT4 SHOVEL: 544 000 kg (1,199,315 lb.) FT4 BACKHOE: 549 000 kg (1,210,338 lb.) FC0 SH0VEL: 544 000 kg (1,199,315 lb.) FC0 BACKH0E: 549 000 kg (1,210,338 lb.)

SHOVEL (ISO HEAPED): 27-29 m<sup>3</sup> (35.3-38 cu. yd.) BACKHOE (ISO HEAPED): 34 m<sup>3</sup> (44.5 cu. yd)

> MTU FT4 SHOVEL: 544 000 kg (1,199,315 lb.) FT4 BACKHOE: 549 000 kg (1,210,338 lb.) FCO SHOVEL: 544 000 kg (1,199,315 lb.) FCO BACKHOE: 549 000 kg (1,210,338 lb.)



**FUEL-EFFICIENT** 

Hitachi's EX-7 Series is designed from more than 100 years of group company expertise, integrating efficiency, reliability and durability. Available as a backhoe or shovel, the EX5600-7 reduces fuel consumption by 8 percent.\* Plus, it features productivity-boosting advantages like an improved hydraulic system, engine options and simplified maintenance.

# The EX5600-7 offers MAXINIZED PERFORMANCE.



# UNMATCHED EFFICIENCY. UNCOMPROMISED PRODUCTIVITY.

The EX5600-7 features the latest engine and energy optimizing technologies to provide an 8 percent reduction in fuel consumption.\* Additionally, this workhorse includes electronically controlled hydraulic pumps, an optimized cooling package and enhanced hydraulic circuits to provide unmatched efficiency without compromising productivity.

# This excavator gives you **BIG BENEFITS.**



## MAIN PUMP ELECTRIC REGULATORS

Individually controlled hydraulic pumps utilize an electric regulator on each main pump, optimizing engine power and lowering fuel consumption to deliver a more efficient performance.

#### HYDRAULIC REGENERATION CIRCUIT

The new flow regeneration valve fitted to the hydraulic system reduces hydraulic pump demand ultimately reducing the power requirements from the hydraulic system and engine, lowering fuel consumption and improving pump life.

#### HYDRAULIC OIL COOLER FAN

The redesigned hydraulic oil cooler with variable speed fan requires less power to cool hydraulic oil, resulting in a more reliable hydraulic system with reduced energy demand.

#### **RADIATOR FAN CLUTCH**

The radiator fan clutch and variable speed fan are specifically tailored to the engine cooling requirement, resulting in an optimal cooling system with reduced engine horsepower demand and less operational noise.



## **EFFICIENT ENGINE OPTIONS**

Choose from Cummins or MTU U.S. EPA Final Tier 4 (FT4) engines, and Cummins or MTU Fuel-Calibration Optimization (FCO) options for fuel-efficient operation.

## **ELECTRIC MOTOR OPTION**

The EX5600-7E electric excavator option with a Hitachi AC electric motor is available.



#### **FRONT ATTACHMENT HOSES**

Hitachi's hose design is based on a cyclic fatigue rate to maximize longevity and improve safety. Front attachment hoses have also been rearranged from the traditional arch style to an underslung configuration, removing the need for clamping, reducing chafing and increasing reliability.

## ELECTRONIC CYLINDER STROKE CONTROL

The new on-board electronic controller receives signals from angle sensors fitted to the boom and arm to control the pump flow rate and cylinder speed, reducing the shock at the stroke end of the cylinder cycle. This new feature improves operator comfort and reduces the impact on the cylinders and structures, increasing reliability and productivity.

# ON-DEMAND **Production**.

Engineered from the ground up with advanced technologies to maximize productivity, the EX5600-7 rises to the challenges of demanding mining operations.

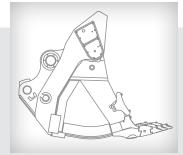
# When you choose the EX5600-7, **NOTHING'S STOPPING YOU.**

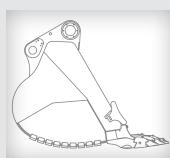
## FRONT ATTACHMENT

With a front attachment design optimized for machine performance, the EX5600-7 can achieve superior productivity under various digging profiles.

HITACHI

The boom and arm are welded, utilizing a low stress, full-box section design to evenly distribute stress throughout the high tensile strength steel structure and provide for ease of maintenance.





## **SHOVEL DESIGN**

The Loading Shovel attachment is equipped with an auto-leveling crowd mechanism that controls the bucket at a constant angle. Complete with floating pin and bush, the bucket has been specifically designed to enhance loading capability with a tilt angle that enhances operational efficiency.

#### **BACKHOE DESIGN**

The Backhoe attachment is designed using computer aided box frame analysis to determine the optimal structure for integrity and longevity. Complete with floating pin and bush, Hitachi buckets are designed to match the geometry of the attachment to maximize productivity. SHOVEL EXCAVATING FORCE

Arm crowding force on ground I 520 kN (I55 000 kgf)

Bucket digging force I 590 kN (I62 000 kgf)

#### **BACKHOE EXCAVATING FORCE**

Arm crowding force 438 kN/44 660 kgf (96,254 lbf.)

Bucket digging force 569 kN/58 020 kgf (127,912 lbf.)

# SAFETY FOCUSED. Operator Friendly.

At Hitachi, safety is a top priority. And the layout of the EX5600-7 provides for a safer and more maintainable machine. Plus, intuitive and advanced features empower the operator to personalize their work environment for increased productivity.

# The EX5600-7 offers advanced **SAFETY FEATURES**.



#### **EMERGENCY STOP SWITCHES**

Seven emergency stop switches are easily accessible around the machine to improve safety. The emergency switch located in the cab has the added feature of releasing the hydraulic tank pressure when activated to reduce the parasitic pressure in the hydraulic system.



# **DUAL ISOLATOR SWITCH**

The dual isolator switch can deactivate the engine and battery individually. The battery isolator isolates the positive and negative battery terminals for safe inspections. The engine isolator deactivates the engine starter motor while allowing battery power to the electric system.

#### **ON-BOARD INCLINOMETER**

The on-board inclinometer offers two predetermined safety limits to assist the operator. If the first safety limit is exceeded, the operator receives a visual alert prompting corrective action. The alert escalates to an audible alarm if the second safety limit is breached.





# **EMERGENCY ESCAPE CHUTE**

An escape chute has been added to the side of the cab for use in an emergency. The chute allows evacuees to descend vertically down from the machine, providing a safe and fast route of escape when all other means of exit are blocked.



#### **ROLL SCREENS**

Retractable front and side roll screens protect the operator from UV glare and reduce heat buildup in the cab, improving the efficiency of the climate controlled air conditioner for a superior operating environment.

#### CLIMATE CONTROLLED AIR CONDITIONING

The pressurized cab's climate controlled air conditioning optimizes filtering of interior and exterior air. Plus, a new flexi-vent system provides a personalized environment.

## **OPERATOR SEAT**

The automatic weight-adjusting air suspension seat calculates optimal cushioning to match the operator's weight, enhancing comfort and minimizing vibration.

#### **ELECTRONIC JOYSTICKS**

Connected to the machine's microprocessor, the integrated electronic joysticks enable precise and almost effortless operation.

# INCREASED COMFORT. DECREASED FATIGUE.

The EX5600-7 cabin is designed for a superior operating experience. The ergonomic layout, electronic joysticks, intelligent multi-display, air suspension seat and advanced climate control system provide an operating environment conducive to less fatigue and enhanced operator productivity.

# Hardworking operators deserve a **COMFORTABLE CAB.**



## **OPERATOR CABIN**

Laminated, tinted windows reduce heat and glare. The Level II Operator Protective Guard (OPG) provides secure protection from falling objects, ensuring operator safety.

## **MULTI-FUNCTIONAL DISPLAY**

Fitted with an LED back-light to provide improved clarity with reduced glare and reflection, the multi-functional display provides key machine information and performance indicators through use of an integrated dial switch interface.

# MINIMIZED MAINTENANCE. MAXIMZED UPTIME.

Hitachi is focused on safe and simplified maintenance. That's why the EX5600-7 is designed for easy maintenance and inspections with features like spacious walkways, maintenance alerts, a centralized lubrication system and more.

# This workhorse offers SIMPLIFIED SERVICING.



# Contraction of the second seco

**AUTO-LUBRICATING SYSTEM** 

A redesigned auto-lubrication system comes with a 673 L (177.8 gal.) large capacity grease tank, new grease pump, in-line grease filter with breather, grease level indicator in cab and provision for fitting of a second grease pump in the lubrication tank.



**GREASE-LESS CENTER JOINT** The redesigned center joint is selflubricating utilizing the machine's hydraulic oil, reducing the need for daily maintenance.



SWING CIRCLE COVER A cover has been added to the outside of the swing bearing to provide protection to the lubrication piping against damage from debris.

**MAINTENANCE ACCESS** 

Walkways, platforms and wide open service areas provide ease of access for daily maintenance tasks, and to engine, hydraulic and electrical components for quick and easy inspections.



#### **CONTAMINATION SENSORS**

Contamination sensors are located on all main hydraulic pumps to detect any contaminants that may cause damage to the hydraulic system. The sensors alert the operator and record the fault code in the Data Logging Unit (DLU).

## CENTRALIZED LUBRICATION SYSTEM

The centralized fast-filling system provides easy access from the ground to refill and evacuate lubricants, water, grease and fuel. The fast-filling system can be fitted with an optional quick coupler.



## **CENTER TRACK FRAME**

Hitachi's exclusive center track frame delivers optimal stress dispersion through the use of specifically designed castings to reduce welds in critical high stress areas.

### **TRACK SHOES**

The proven Hitachi patented track shoe design helps reduce premature wear of the drive-lugs. Each shoe is induction hardened to deliver a more durable solution.

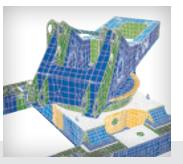
# DURABILITY BUILT IN. Downtime tossed out.

Built and engineered for the mining industry, Hitachi's EX-7 series excavators offer a productive, reliable solution for all operations. From the rigid box design to the 3D computer assisted FEA analysis, the EX5600-7 is designed for the toughest conditions.

# The EX5600-7 is built to OUTWORK AND OUTLAST.



**OIL FILLED ROLLERS & IDLERS** The oil-filled idlers, and upper and lower rollers eliminate the need for daily lubrication, helping reduce maintenance costs.



RIGID BOX DESIGN Computer assisted analysis is used to determine the most effective design for frame longevity to withstand the demands of the mining operation.



# UPPER ROLLERS

The EX5600-7 undercarriage has three double-sided pedestaldesigned upper rollers on each side of the track frame to maintain track shoe clearance and provide protection from debris buildup, reducing shoe and roller wear.



**CENTER FRAME UNDERGUARD** The newly designed heavy duty guard protects hoses and accumulators located in the track center frame from rocks and debris ingress, providing extra protection and reliability.

# DEPENDABLE DESIGN. **Reliable Solution**.

Our EX-7 Series of excavators continues to drive innovation within the mining industry. Advanced technology, enhanced durability, improved safety features and operational performance all combine to make the new EX5600-7 an even more reliable mining solution.

# This excavator provides performance YOU CAN COUNT ON.



#### **CAB RISER PRESSURIZER**

A pressurizer system has been introduced to the cab riser to reduce dust infiltration, maximizing the service life of the electronic components and devices located within.



# SOLID CONDUIT WIRE HARNESSES

The introduction of solid conduit harnesses and junction boxes prevents dust and moisture ingress, improving longevity. Electrical harnesses between junction boxes can be replaced individually, ultimately reducing maintenance time and cost.



**OPERATING LIGHTS** Strategically placed long-life LED working lights provide greater longevity and reliability in night operations.



#### PERIMETER MONITORING CAMERAS

Optional perimeter monitoring cameras offer better visibility of the surrounding area, reducing blind spots for the operator. Cameras are located at the front (2) and rear (2) of the excavator and linked to monitors inside the cab.



# INTELLIGENT SYSTEMS FOR RAPID RESPONSE.

Hitachi's EX-7 Series of excavators connect physical and digital technologies to drive transformation in the mining industry. Utilizing extensive onboard sensors, diagnostic tools, real-time data and advanced software, the EX5600-7 helps optimize your operation.

INTERNET

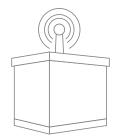
**CUSTOMER** 



HITACHI CONSTRUCTION MACHINERY GROUP AND DEALERS



INFORMATION CENTER, HITACHI CONSTRUCTION MACHINERY



The excavator controller can be

combined with Wenco or another third party fleet management system to provide live operational and performance information, assisting with fleet management.

Wenco

FLEET MANAGEMENT SYSTEM



# Aerial Angle

Aerial Angle(optional) provides the operator with a real-time continuous birds-eye view around their excavator. Cameras strategically mounted on the machine generate a single aerial view of the EX5600-7 surroundings. Multiple screen display options can be selected on the cab's 7-inch Aerial Angle monitor for ease of operation.

#### **GLOBAL E-SERVICE**

Global e-Service is a Hitachi web-based platform which sends vital machine information directly to the customer in an easy-to-understand format.

# SATELLITE / GPRS COMMUNICATION (Optional)

Standard machine information is transmitted daily through either satellite or GPRS (General Packet Radio Service) communication, sending data directly to Hitachi's Global e-Service platform to support the mining operation.



## ANTENNA (GPRS) OR Satellite

#### WIRELESS INTERFACE (OPTIONAL)

Detailed machine information recorded on the Data Logging Unit (DLU) can be remotely downloaded via the Wireless Interface Unit (WIU), providing vital operational & performance data.

INTERNET

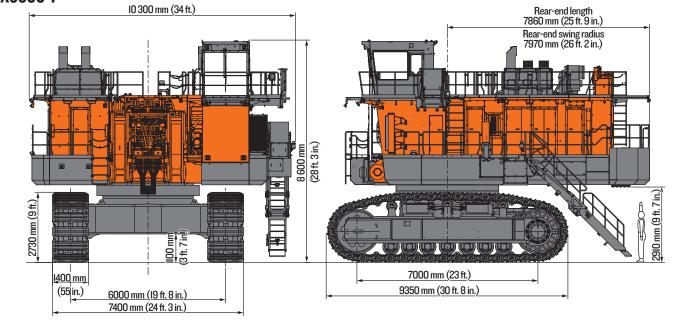


#### ON-SITE STAFF Operation data is collected and uploaded by on-site staff.

Image used for display purposes only.

# **SPECIFICATIONS**

# EX5600-7



Engine	EX5600-7	
Manufacturer and Model	Cummins QSKTA50-CE	MTU 12V4000 C15
Туре	4 cycle	4 cycle
Aspiration	Water-cooled, 4-cycle, I6-cylinder turbo-charged and after-cooled, direct injection chamber-type diesel engine, urea SCR system	Water-cooled, 4-cycle, I2-cylinder, 2-stage turbo- charged and after-cooled, direct injection chamber- type diesel engine, Miller cycle, cooled EGR
Emission Certification	U.S. EPA Tier 4 Final	U.S. EPA Tier 4 Final
Rated Power		
Gross power (SAE J1995)	2 x l ll9 kW (2 x l,500 hp) at l800 min <sup>-l</sup> (rpm)	2 x 1150 kW (1,542 hp) at 1800 min <sup>-1</sup> (rpm)
Net	2 x I 069 kW (2 x I,434 hp) at I800 min <sup>-i</sup> (rpm)	2 x 1087 kW (1,458 hp) at 1800 min <sup>-1</sup> (rpm)
Maximum torque	2 x 6570 N-m (670 kgf-m) at I400 min <sup>-ı</sup> (rpm)	2 x 7351 N-m (750 kgf-m) at 1494 min <sup>-1</sup> (rpm)
Piston displacement	2 x 50.0 L (2 x 3,051 cu. in.)	2 x 57.2 L (2 x 3,491 cu. in.)
Bore and stroke	159 mm x 159 mm (6.3 in. x 6.3 in.)	170 mm x 210 mm (6.7 in. x 8.3 in.)
Starting system	24 V electric motor	24 V electric motor
Batteries	6 x I2 V, 6 x I85 AH	6 x 12 V, 6 x 185 AH
Hydraulic System		
Hitachi's ETS (Electronic Total control Syste	m) can achieve maximum job efficiency by reducing fuel consumption and no	ise levels, while maximizing productivity through the
	excellent controllability increasing operator comfort.	
Computer-Aided Engine-Pump Control System		
	speed sensing control system. Optimum operation mode selectable among 3 p	ower modes depending on type of job.
Optimum Hydraulic System (OHS)		
	e both independent and combined operations of all functions.	
FPS (Fuel-saving Pump System)		
FPS minimizes energy loss with superior p	erformance in fine control.	
Additional Features		
Auto-idling system for saving fuel and red	-	
Hydraulic drive cooling-fan system for oil co		
Forced-lubrication and forced-cooling pun	np drive system.	

Main Pumps

I2 variable-displacement, axial piston pumps for front attachment, travel and swing.

	· · · · · · · · · · · · · · · · · · ·
Maximum oil flow	8 x 375 L/min (8 x 99.I gal./min.), 4 x 425 L/min (4 x 112.3 gal./min.)
Pilot Pump	
Gear pump	2 gear pump
Maximum oil flow	2 x 108 L/min (28.5 gal./min.)
Fan Pump	
Variable-displacement, swash plate ty	ype axial piston pumps
Relief Valve Settings	
Implement circuit	29.4 MPa (300 kgf/cm²) (4,264 psi)
Travel circuit	29.4 MPa (300 kgf/cm²) (4,264 psi)
Swing circuit	24.5 MPa (250 kgf/cm²) (3,553 psi)
Pilot circuit	3.9 MPa (40 kgf/cm²) (566 psi)
Hydraulic Cylinders	
High-strongth piston rade and tube	a adapted. Cylinder auchien mechanisme are provided for beem, arm, busket, and dump cylindere. Busket cylindere of leading abovel are

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 (Backhoe)			
	Quantity	Bore	Rod Diameter
BE-boom	2	420 mm (16.5 in.)	300 mm (II.8 in.)
BE-arm	2	360 mm (14.2 in.)	260 mm (10.2 in.)
Bucket	2	310 mm (12.2 in.)	230 mm (9.1 in.)
Cylinder Dimensions (Loading Shovel)			
	Quantity	Bore	Rod Diameter
Boom	2	420 mm (16.5 in.)	300 mm (II.8 in.)
Arm	1	360 mm (14.2 in.)	260 mm (10.2 in.)
Bucket	2	340 mm (13.4 in.)	250 mm (9.8 in.)
Dump	2	280 mm (II in.)	160 mm (6.3 in.)
Level	1	420 mm (16.5 in.)	300 mm (II.8 in.)
Hydraulia Eiltore			

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	6	ΙΟ μm
High pressure strainer	12	I20 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
Controls		

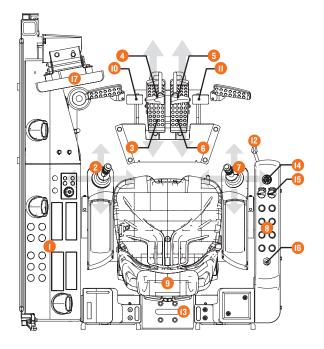
#### **Two Implement Levers**

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.

#### Two 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
- Left Travel Pedal 3
- Left Travel Lever 4
- 5 **Right Travel Lever**
- 6 **Right Travel Pedal**
- 7 Right Control Lever/Horn Switch
- Right Console 8
- 9 **Operator's Seat**
- Bucket Close Pedal (for loading shovel) 10
- 11 Bucket Open Pedal (for loading shovel)
- Pilot Control Shut-off Lever 12
- 13 **Rear Console**
- **Emergency Engine Stop Switch** 14
- 15 **Engine Speed Contol Dial**
- Key Switch 16
- Monitor Display 17



#### 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. Sidewalks provide easy access to engine, hydraulic and electrical components. ISO-met stairs and handrails. Sidewalks and stairs are provided with skid-resistant plates. Diesel Engine x 2 1 2 Engine Radiator x 2 Pump Dirve Unit 3 Hydraulic Pump x 12 4 Engine-Pump Bulkhead 5 Hydraulic Tank 6 Fuel Tank 7 8 Control Valve x 6 High-Pressure Striner x 12 9 Hydraulic Oil Cooler x 4 10 90 11 Hydraulic Oil Cooling Fan Motor x 2 0 12 Lubrication 13 Swing Device x 4 **Center Joint** 14 15 **Battery Unit** 16 Cab 17 Air Filter (outer/inner) x 4 Muffler 18 **Folding Stairs** 19 20 Fuel Cooler 21 Reserve Tank (coolant) x 2 22 LTA Radiator x 2 23 Pump Tansmission Oil cooler x 2 DEF Tank (only for Cummins Tier 4 F) x 2 24 25 Fuel Filer (water separator) x 2 26 Ladder 27 Isolation Switch Box **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<sup>-1</sup> (rpm) **Operator's Cab** The sturdy cab, with OPG top guard level II (ISO), helps protect the operator from falling objects. Independent, pressurized, 1800 mm (5 ft. II in.), 2150 mm (7 ft. I in.) high, roomy 7.5 m<sup>3</sup> (9.8 cu. yd.) cab with tinted-glass windows features all-round visibility. Air-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. 3 air conditioner system. Noise level 75 dB (A) in the cab at maximum engine speed under no-load condition

Eye level height Loading Shovel 7640

7640 mm (25 ft. I in.)

#### 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

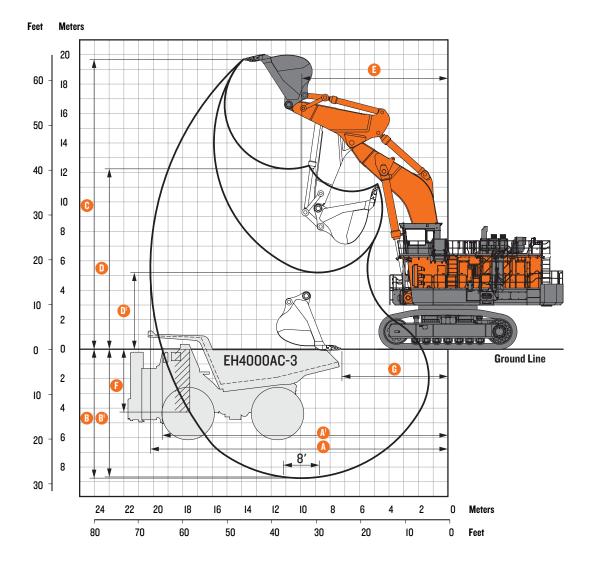
enerer type endered that				
Triple grouser track sho	es of induction-hardened cast steel.			
Shoe width	1400 mm (5	5 in.) standard		
Number of Rollers and Shoe	es (each side)			
Upper rollers	3			
Lower rollers	7			
Track shoes	39			
Travel Device				
Each track driven by hig	h-torque, axial piston motors, allowing	g counter rotatio	n of tracks. 2-stage planetary gear p	olus spur gears reduction device. Dual-support-type travel device.
Parking brake of spring-	set/hydraulic-released disc type. This	parking brake is	s manually releasable.	
Travel speeds	Low: 0 – 1.6	km/h (0 - 1 mpł	1)	
	High: 0 – 2.	3 km/h (0 – 1.4 r	nph)	
Maximum traction force	2230 kN (2	27 000 kgf) (50	0,449 lbf.)	
Gradeability	58% (30°)	naximum		
Weights and Ground Pressu	re			
Backhoe: Equipped with 10	.I-m (33 ft. 2 in.) BE boom, 5-m (16 ft	5 in.) BE arm ar	nd 34-m³ (44.5 cu. yd.) ISO heaped l	pucket
Shoe Type	Shoe Width	Engine Type	Operating Weights	Ground Pressure
Triple Grousers	1400 mm (55 in.)	T4F	549 000 kg (1,210,338 lb.)	246 kPa (2.51 kgf/cm²) (35.7 psi)

Loading Shovel: Equipped with 6.5 m<sup>3</sup> (8.5 yd. cu.) (ISO heaped) bottom dump bucket.

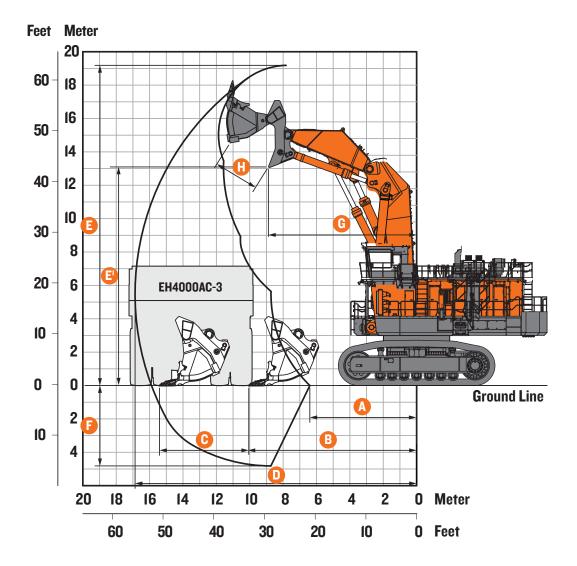
Shoe Type Side I	Frames	Engine Type	Operating Weights	Ground Pressure
Triple Grousers	1400 mm (55 in.)	T4F	544 000 kg (1,199,315 lb.)	244 kPa (2.49 kgf/cm²) (35.4 psi)
Service Refill Capacities				
Fuel tank	11 300 L	(2,985 gal.)		
DEF tank (Cummins Tier 4 Final sp	ec) 356 L (9	4 gal.)		
Engine coolant	2 x 450	. (2 x 119 gal.)		
Engine oil	2 x 290	L (2 x 77 gal.)		
Pump drive	2 x 30 L	(2 x 8 gal.)		
Swing device (4 units)	4 x 84 L	(4 x 22 gal.)		
Travel device (2 units)	2 x 340	. (2 x 90 gal.)		
Hydraulic system	6200 L	(I,638 gal.)		
Hydraulic oil tank	2200 L (	581 gal.)		

# **SPECIFICATIONS**

# EX5600-7



<b>Backhoe Attach</b>	ments												
Boom and arm a	re all-welded, low	-stress, full-box	section design. Bucket of	all-welded high-stre	ngth steel structure.								
Working Range	s												
<b>BE-</b> boom length			10.1 m (33 ft. 2 in.)										
<b>BE</b> -arm length			5 m (16 ft. 5 in.)										
Bucket Capacity	/ (ISO 7451 Heape	d 1:1)	34 m³ (44.5 cu. yd.)	34 m <sup>3</sup> (44.5 cu. yd.)									
A Max. diggin	g reach		,	20 200 mm (66 ft. 3 in.)									
A <sup>I</sup> Max. diggin	g reach (on grour	ld)	19 400 mm (63 ft. 8 in	/									
B Max. diggin			8800 mm (28 ft. 11 in.										
B <sup>1</sup> Max. diggin	g depth (2.5 m (8	ft. 2 in.) level)	8700 mm (28 ft. 7 in.)	1									
C Max. cutting	g height		19 700 mm (64 ft. 8 in	.)									
D Max. dumpi	ng height		12 200 mm (40 ft.)										
D <sup>1</sup> Min. dumpir	ng height		5200 mm (17 ft. I in.)										
E Min. swing	radius		9900 mm (32 ft. 6 in.)	)									
F Max. vertica			4300 mm (14 ft. I in.)										
G Min. level ci	rowding distance		7200 mm (23 ft. 8 in.)	1									
Bucket digg	ging force (ISO)*		1480 kN/151 000 kgf (332,717 lbf.)										
Arm crowdi	ng force (ISO)*		I300 kN/I33 000 kgf (292,252 lbf.)										
*This is the	calculated value	at the loading p	oint (Cutting Edge) cor	forming to ISO.									
Bucket													
Boom and arm	are of all-welded,	low-stress, hig	h-tensile strength steel	full-box section des	ign.								
Capacity (ISO 7	451 heaped 1:1)	Width	Numb	Weight	ight Type			Materials density					
34.0 m <sup>3</sup> (44.5 c	cu. yd.)	4640 mm (I	i ft. 3 in.) 5		32 400 kg (71,430 lb.)		General purpose			1800 kg/m³ or less (3,034 lb./cu. yd.)			
			r sides, bottom, and inside the b	ucket. Please consult your l	ocal Hitachi dealer for a prope	er wear protectio	on system for you	application.					
	e buckets without prope	er wear protection for	your application.										
Bucket Passes	Truck		Nominal Payload	Bucket Cap	acity			Passes to Fil	1				
	ITUCK		Nullillai Payluau	DUCKET Gapa	acity	0	3	asses io fii	5	6	7		
						2	J	4	J		- 1		
Backhoe	EH3500A	C-3	181 tonnes (200 tons)	34-m³ (44.5 c Bucket	100 10	<b></b>							
			(200 10115)	DUCKET									
Backhoe	EH4000A	C-3	221 tonnes (243.6 tons)	34-m³ (44.5 c Bucket		1	1	٠					
			296 tonnes	34-m³ (44.5 c	_	. 0.00	. anala						
Backhoe	EH5000A	C-3	(326 tons)	Bucket		<u> </u>			<b>C</b>				



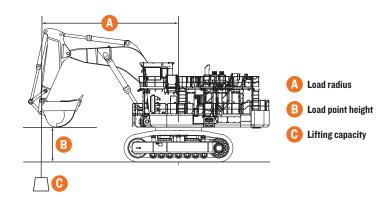
## Loading Shovel Attachments

Boom and arm are all-welded, low-stress, high-tensile strength steel fullbox 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).

Working Ranges									
Capacity (ISO 74	I56 heaped 2:1)	27.0 m³ (35.3 cu. yd.)	29.0	) m³ (38 cu. yd.)					
A Minimum d	gging distance	6150 mm (20 ft. 2 in.)	640	0 mm (21 ft.)					
B Minimum le	vel crowding distance	9800 mm (32 ft. 2 in.)	10 0	50 mm (33 ft.)					
C Level crowd	ling distance	5550 mm (18 ft. 3 in.)	5350	0 mm (17 ft. 7 in.)					
D Maximum d	igging reach	16 600 mm (54 ft. 6 in.)	17 00	00 mm (55 ft. 9 in.)					
E Maximum c	utting height	18 900 mm (62 ft.)	19 20	00 mm (63 ft.)					
E <sup>I</sup> Maximum d	umping height	13 100 mm (43 ft.)	13 10	10 mm (43 ft.)					
F Maximum d	igging depth	4550 mm (14 ft. 11 in.)	480	0 mm (15 ft. 9 in.)					
G Working rad	lius at maximum dumping heig	ht 8900 mm (29 ft. 2 in.)	890	0 mm (29 ft. 2 in.)					
H Maximum b	ucket opening width	2700 mm (8 ft. 10 in.)	2700	0 mm (8 ft. 10 in.)					
Arm crowdi	ng force on ground	1570 kN/160 000 kgf (3	52,950 lbf.) 1520	1520 kN/155 000 kgf (341,710 lbf.)					
Bucket digg	ing force	1710 kN/174 000 kgf (38	4,423 lbf.) 1590	) kN/162 000 kgf (357,44	6 lbf.)				
Buckets									
Capacity (heape	d) Width	No. of teeth	Weight	Туре		l	Materials der	nsity	
27.0 m <sup>3</sup> (35.3 ci	ı. yd.) 4800 mm (15 ft	. 9 in.) 6	43 400 kg (95,681 lb	.) Bottom dump ty	pe general pu	rpose	1900 kg/m³ (	(3,203 lb./	yd.³)
29.0 m <sup>3</sup> (38 cu.	yd.) 4800 mm (15 ft	. 9 in.) 6	44 200 kg (97,444 lb	.) Bottom dump ty	pe general pu	rpose	1800 kg/m³ (	(3,034 lb./	yd.³)
	do not include any type of wear protection on for your application.	on for sides, bottom, and inside the bucke	et. Please consult your local Hitac	hi dealer for a proper wear protec	tion system for you	ır application. P	ease do not use	the buckets w	vithout
Bucket Passes t	o Dump Trucks								
	Truck	Nominal Payload	Bucket Capacity		Pas	ses to Fill			
				1 2	3	4	5	6	7
Shovel	EH3500AC-3	181 tonnes	29-m³ (38 cu. yd.)		Y 1				

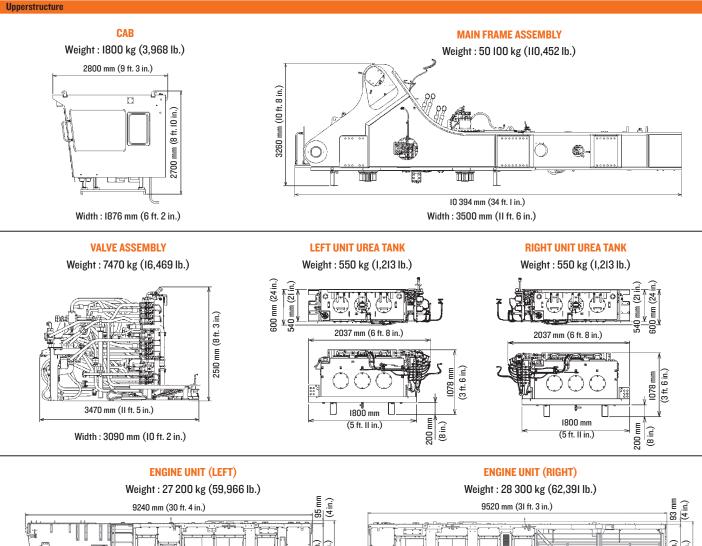
Shovel	EH3500AC-3	(200 tons)	Bucket	V.	100 million	20	20		
Shovel	EH4000AC-3	221 tonnes (243.6 tons)	29-m³ (38 cu. yd.) Bucket	<b>V</b>	V.	V.			
Shovel	EH5000AC-3	296 tonnes (326 tons)	29-m³ (38 cu. yd.) Bucket						

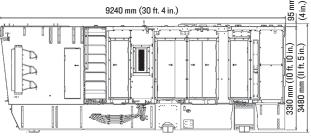
Lift Capabilities											Unit: 1000	kg (1,000	lb.)
Boldface type indicates hydraulic-li				ty-limited cap	acities in kg (ll	b.). Figures do	not exceed 87	percent of hyd	Iraulic capaciti	ies or 75 perc	ent of weight n	eeded to tip n	nachine. The
load point is a hook (not standard e	equipment) loaded o	on the back of	the bucket.										
Load Point Height	8.0 m (20	6 ft. 3 in.)	10.0 m (3	2 ft. 10 in.)	12.0 m (3	19 ft. 4 in.)	14.0 m (4	5 ft. 11 in.)	16.0 m (5	2 ft. 6 in.)	At	Maximum Re	ach
Horizontal Distance from	Over	Over	Over	Over	Over	Over	Over	Over	Over	Over	Over	Over	meters
Centerline of Rotation	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	(feet)
EX5600-7 with IO.I-m (33 ft. 2 in.) E	3E boom, 5-m (16 ft. !	5 in.) BE arm, 3	34-m³ (44.5 cu	. yd.) bucket (	ISO 745I) and I	400-mm (55 ir	.) shoes						
14.0 m (45 ft. 11 in.)							33.5	33.5			34.1	20.8	17.9 m
14.0 m (40 m. n m.)							(73.9)	(73.9)			(75.2)	(45.9)	(58 ft. 9 in.)
12.0 m (39 ft. 4 in.)							40.9	40.9			34.2	19.9	18.8 m
12.0 m (00 m. 4 m.)							(90.2)	(90.2)			(75.4)	(43.9)	(61 ft. 8 in.)
10.0 m (32 ft. 10 in.)							39.2	39.2	39.5	39.5	35.7	19.8	19.2 m
10.0 11 (02 11.10 11.)							(86.4)	(86.4)	(87.1)	(87.1)	(78.7)	(43.7)	(63 ft.)
8.0 m (26 ft. 3 in.)					36.4	36.4	42.0	42.0	43.2	43.2	38.7	20.3	19.4 m
					(80.2)	(80.2)	(92.6)	(92.6)	(95.2)	(95.2)	(85.3)	(44.8)	(63 ft. 8 in.)
6.0 m (19 ft. 8 in.)					55.2	55.2	51.5	51.5	48.4	48.4	43.5	21.5	19.4 m
0.0 m (13 m. 0 m.)					(122)	(122)	(113.5)	(113.5)	(106.7)	(106.7)	(95.9)	(47.4)	(63 ft. 8 in.)
4.0 m (13 ft. 1 in.)					90.1	90.1	69.9	69.9	56.5	56.5	48.6	23.6	19.0 m
4.0 11 (13 11. 1 11.)					(199)	(199)	(154.1)	(154.1)	(124.6)	(124.6)	(107.1)	(52)	(62 ft. 4 in.)
2.0 m (6 ft. 7 in.)					92.1	92.1	71.8	71.8	56.8	56.8	47.1	26.7	18.4 m
2.0 m (0 m. 7 m.)					(203)	(203)	(158.3)	(158.3)	(125.2)	(125.2)	(103.8)	(58.9)	(60 ft. 4 in.)
Ground Line					88.9	88.9	69.2	69.2	53.2	53.2			
dibulu Line					(196)	(196)	(152.6)	(152.6)	(117.3)	(117.3)			
-2.0 m (-6 ft. 7 in.)			99.5	99.5	79.9	79.9	61.8	61.8	44.2	44.2			
-2.0 m (-0 n. 7 m.)			(219.4)	(219.4)	(176.1)	(176.1)	(136.2)	(136.2)	(97.4)	(97.4)			
-4.0 m (-13 ft. 1 in.)	91.6	91.6	78.2	78.2	63.8	63.8	47.1	47.1					
-4.0 III (-13 II. I III.)	(201.9)	(201.9)	(172.4)	(172.4)	(140.7)	(140.7)	(103.8)	(103.8)					





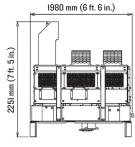
Illustrations show diesel engine type. Easily assembled owing to local assembling system requiring no welding. Overall width of below 3500 mm (II ft. 6 in.) during transportation.



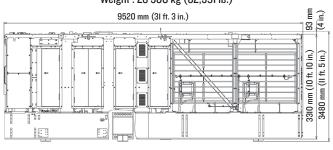


Width : 3270 mm (10 ft. 9 in.)

EXHAUST UNIT (LEFT / RIGHT) Weight : I400 kg (3,087 lb.) × 2



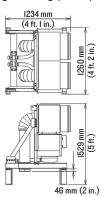
Width : 2000 mm (6 ft. 7 in.)

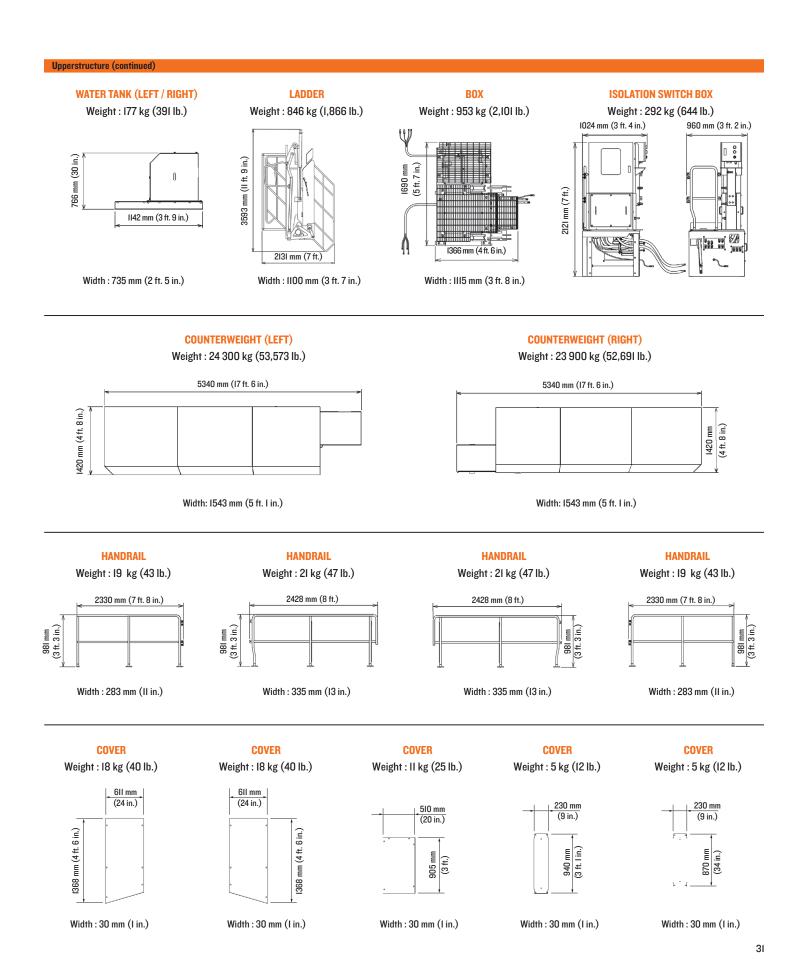


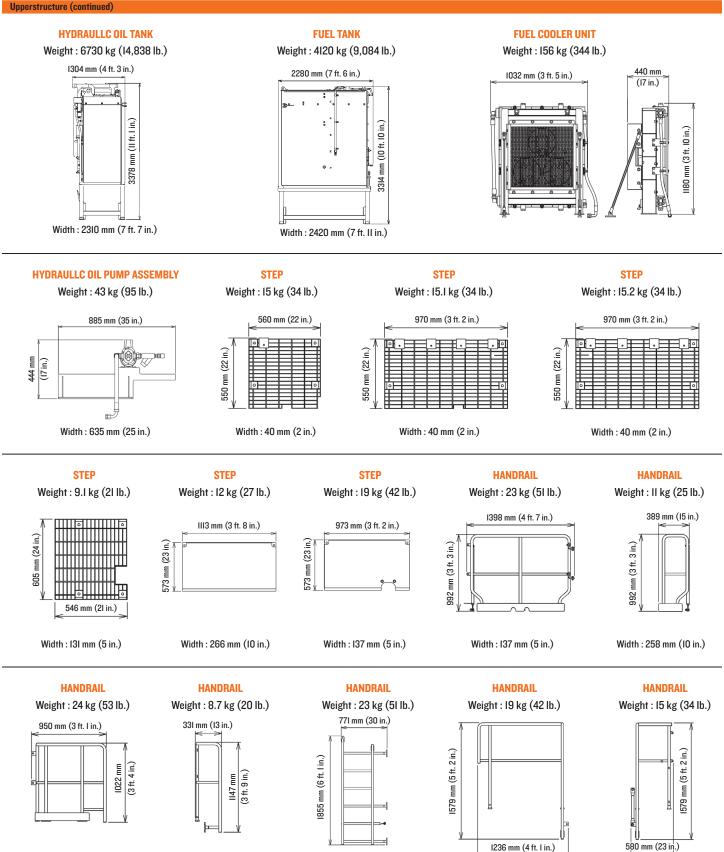
Width : 2535 mm (8 ft. 4 in.)

**INTAKE UNIT (LEFT / RIGHT)** 

Weight : 320 kg (706 lb.) x 2





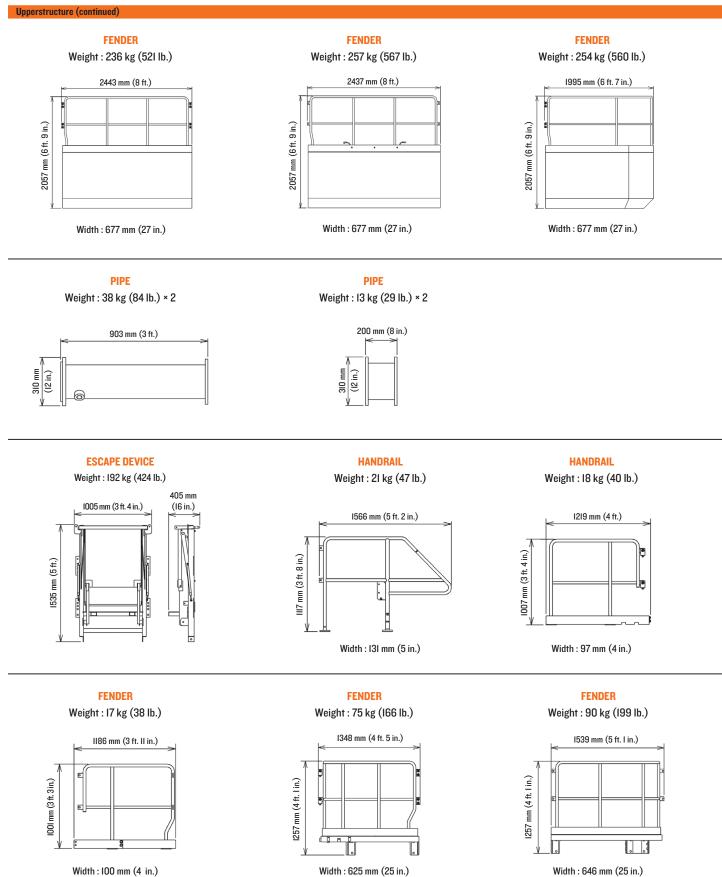


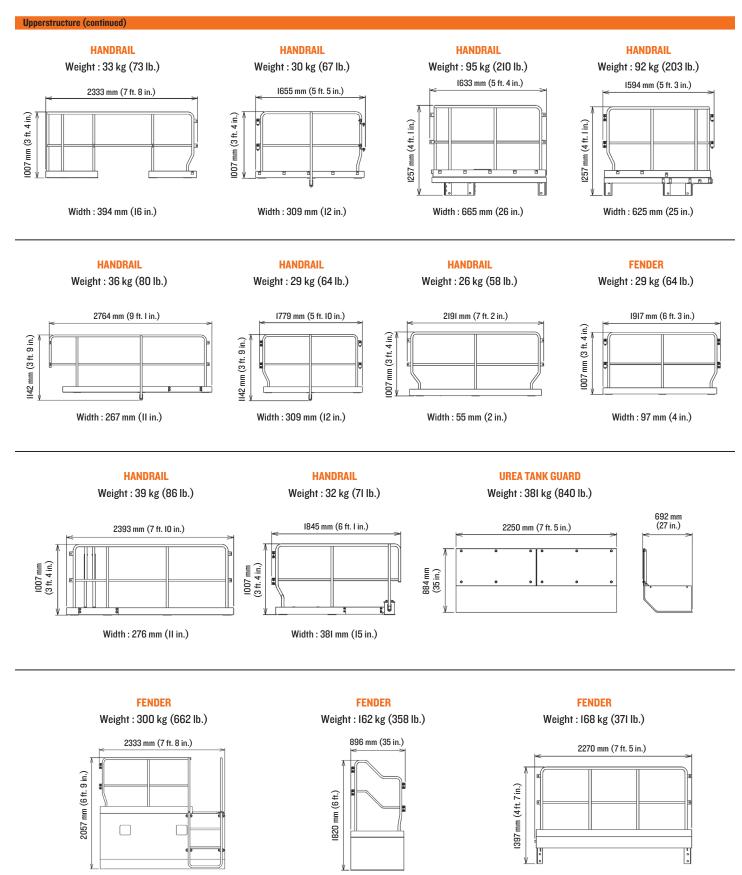




10 in.) Width : 348 mm (14 in.)

580 mm (23 in.) Width : 322 mm (13 in.)

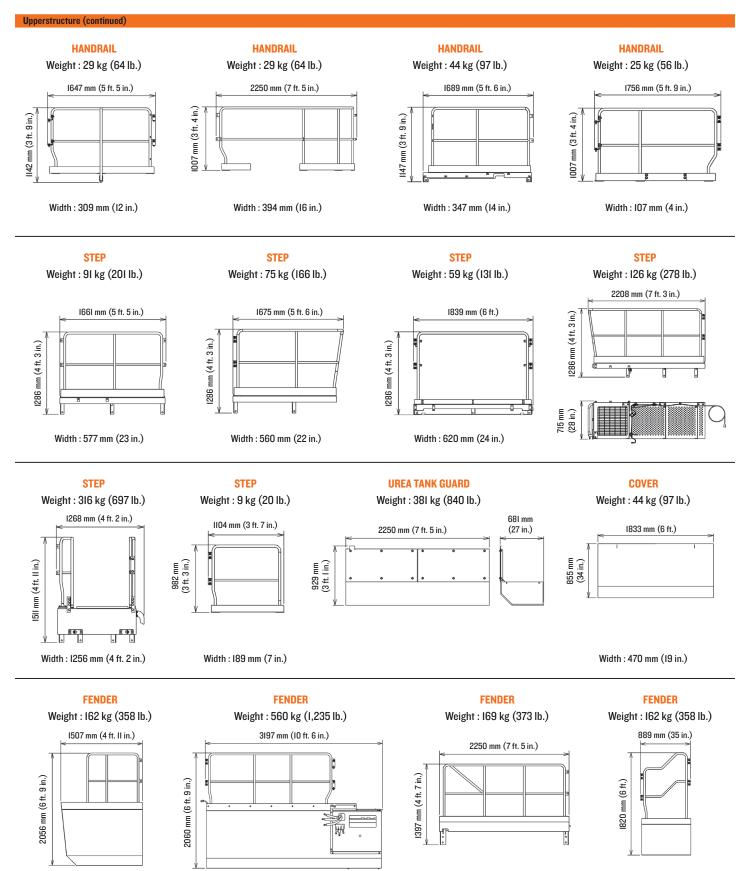




Width : 811 mm (32 in.)

Width : 677 mm (27 in.)

Width : 683 mm (27 in.)

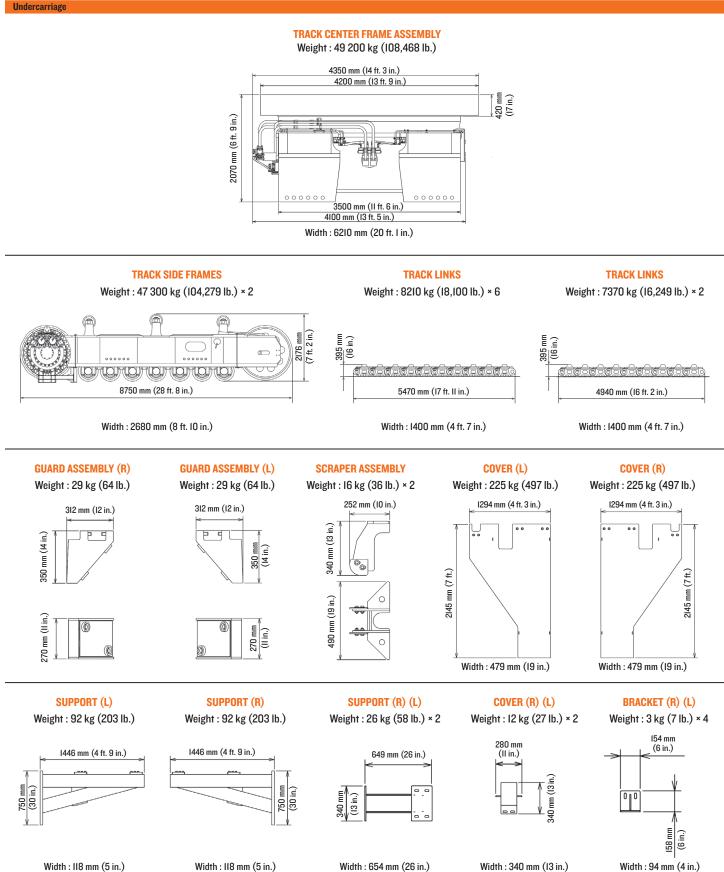


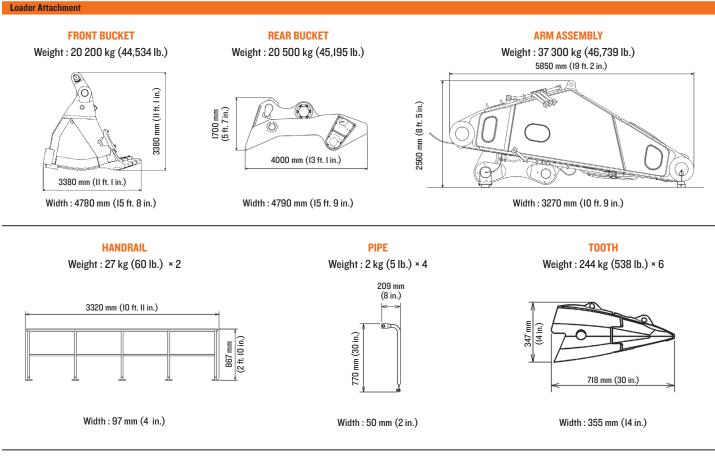
Width : 780 mm (31 in.)

Width : 766 mm (30 in.)

Width : 683 mm (27 in.)

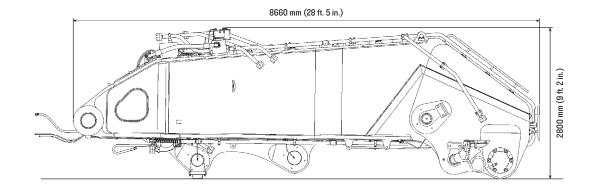
Width : 677 mm (27 in.)





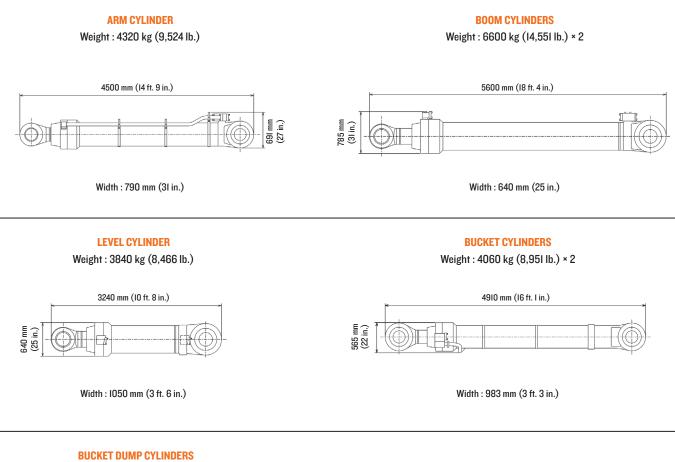
**BOOM ASSEMBLY** 

Weight : 36 800 kg (81,131 lb.)

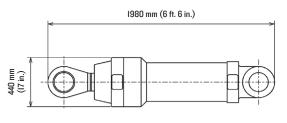


Width : 3240 mm (10 ft. 8 in.)

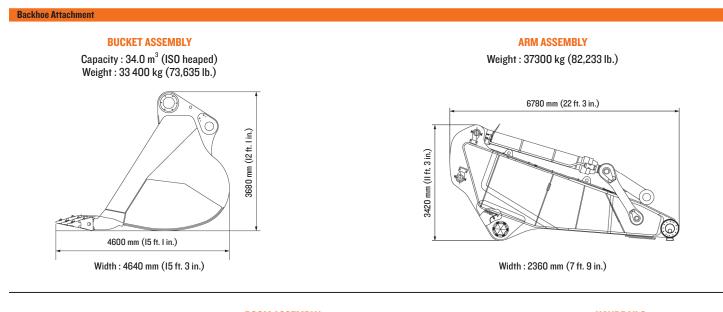
Loader Attachment

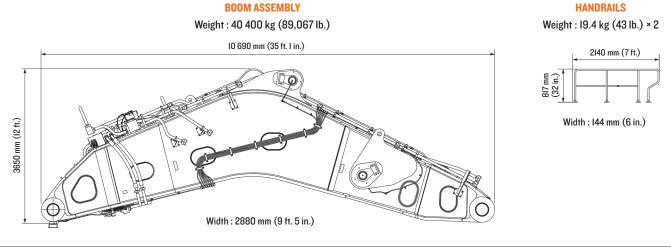


Weight : 985 kg (2,172 lb.) × 2



Width : 443 mm (17 in.)



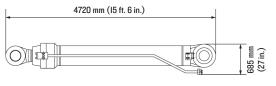


**BOOM CYLINDERS** Weight : 6880 kg (15,168 lb.) × 2



Width : 640 mm (25 in.)





Width : 865 mm (34 in.)

# CLAMP ASSEMBLY

Weight : 49 kg (109 lb.)

# Engine Auto-idle system

- Cartridge-type engine oil bypass filter
- 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
- I40 A alternator

#### Hydraulic System

### • Bypass filter

- Control valve with main relief valve
- Drain filter
- E-P control system
- Forced-lubrication and 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

- Adjustable reclining seat with air suspension
- Air conditioner with defroster
- Air horn with electric compressor
- Auto-tuning AM-FM radio with digital clock
- Emergency escape device
- Evacuation hammer
- Floor mat
- Fluid-filled elastic mounts
- Footrest
- Front windshield washer
- Hot & cool-box
- Laminated glass windshield
- OPG top guard level II (ISO)
- 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
- On-board inclinometer
- 4 color monitor cameras ; 2 front and 2 rear Meters:
- Ambient temperature
- Battery voltage gauge

DKD56007HT Litho in U.S.A. (20-07)

- Clock
- Engine coolant temperature gauge (R).(L)

#### Cab (continued)

- Engine oil pressure gauge (R).(L)
- Engine oil temperature gauge (R).(L)

Key: • Standard 🔺 Optional or special kit

Lights

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3 entrance LED lights

8 working LED lights

Cab riser pressurizer

and return pipe lines

Folding stairs with wide steps

Lockable machine covers

48 800 kg counterweight

Grease-less center joint

Travel motion alarm device

Travel parking brake

Battery isolator switch

Emergency stop switches

Emergency escape chute

Engine oil reserve system

12 V power terminal board

**Fast-Filling System** 

**Optional Equipment** 

Standard tool kit

Front cab guard

Travel motor guard

Cold weather package\*

High-altitude application\*

Travel transmission guard

Center track frame cover

Additional fuel filter (Parker FBO-I4)

\*\*The availability of the system depends on licensing

See your Hitachi dealer for further information.

\*Engineered on request.

regulations in each country.

HitachiConstruction.com ction & Mining Division – Americas 1300 River Drive • Moline, IL 61265

included.

Aerial Angle

**Miscellaneous** 

Swing circle excess grease scraper

Swing circle lubrication piping protection

1400 mm (55 in.) triple grouser shoes

Auto-lubrication system (Lincoln) for front-

Recirculation air filter for air conditioner

Stop valve for transport and reassembly

Fast-filling system (Wiggins) for fuel, hydraulic oil,

coolant, swing device oil, pump transmission oil,

engine oil, and grease. Fast-filling couplers

Ventilation air filter for air conditioner

Stairs and handrails (Meeting ISO)

attachment pins, swing bearing and center joint.

Starter isolator switch

Swing parking brake

Undercarriage

with relief valve

Upperstructure

10 maintenance room lights

Electronic cylinder stroke control system

Hydraulic drive grease gun with hose reel

Electric oil pump to draw hydraulic oil from suction

Hydraulic track adjuster with N<sub>o</sub> gas accumulator

- Fuel gauge
- Hour meter
- Hydraulic oil temperature gauge (R).(L)
   Tachometer (R).(L)
- Pilot lamps (Green)
- Auto-Idle
- Pre-lubrication
- Travel mode
- Warning lamps (Red)
   Alternator (R).(L)
- Auto-lubrication
- Coolant level (R).(L)
- Coolant overheat (R).(L)
- Electric lever
- Emergency engine stop
- Engine oil pressure (R).(L)
- Engine over run
- Engine stop (R).(L)
- Fast-filling
- Hydraulic oil level
- Pump transmission oil level indicator (R).(L)
- Stop valve
- Tension

#### Warning lamps (Yellow)

- Air cleaner restriction (R).(L)
- Electrical equipment box
- Engine warning (R).(L)
- Exhaust temperature (R).(L)
- Fuel temperature (R).(L)
- Hydraulic oil overheat
- Pump contamination
- Stairway position
   Warning lamps (Amber)
- Fast-filling
- Alarm buzzers
- Electric lever fault
- Engine coolant level (R).(L)
- Engine oil pressure (R).(L)
- Engine oil temperature (R).(L)
- Fast-filling system panel position
- Fuel temperature (R).(L)
- Hydraulic oil level
- Overheat (R).(L)
- Pump transmission oil level

Data Logging System

GPRS communication system

WIU (Wireless Interface Unit)\*\*

Communication system (Alternative)\*\*

DLU (Data-logging unit) continuously records

management system (Provided by Wenco etc.)

connection\* Satellite data transmitting system

HITACHI

performance of the engine and the hydraulic system.

The record can be downloaded by PC. And for Fleet

Stairway positionStop valve close