HITACHI

Rated Engine HP (gross) 1312 kW (1760 HP)

Operating Weight

Loading Shovel:334 000 kg (736 000 lb) Backhoe:333 000 kg (728 000 lb)

Loading Shovel Bucket

PCSA Heaped:18.0-25.0 m3(23.5-32.7 yd3)

■ Backhoe Bucket

PCSA Heaped:17.0-25.0 m³(22.2-32.7 yd³) CECE Heaped:15.0-22.0 m³ 5uper EX **EX 3500**



When Productivity Counts, the Big EX3500 Is the Right Choice

The Hitachi EX3500 has won widespread acclaim for power and speed, more than expectations, for big productivity. Hitachi expertise doesn't stop there.

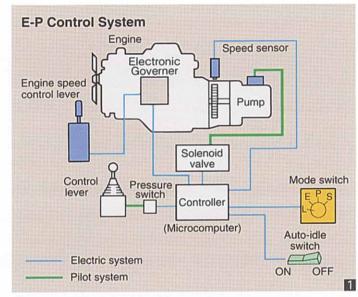
The EX3500 is changing continuously. Here's why. Hitachi always anticipates customer's needs and embodies them before they are demands. The results are a number of design advances ahead of the competition. For instance, strengthening and improvements in key components, reinforcing of structures for increased durability, and use of the high-mounted cab with forward sloping front window for improved downward visibility. Find out the facts in the latest model, the EX3500.

	Loading Shovel	Backhoe	
Engine HP (gross)	1 312 kW (1 760HP)		
Bucket Capacity	18.0m³(23.5yd³)	17.0m³(22.2yd³)	
Max. Digging Force	1 196 kN (122 000kgf,269 000lbf)	1 000 kN (102 000kgf,225 000lbf)	
Bucket Passes to Dump Truck	5:170 US ton 4-5:150 US ton	6:170 US ton 5-6:150 US ton	

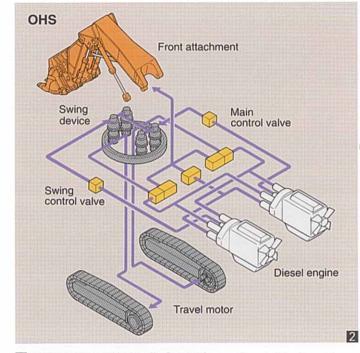


Productive Edge Packed in Robust Body

Long-lasting performance—productivity and durability—are built into the EX3500. The EX3500 offers big-bite, ample-loading capabilities to get the job done fast. In other words, the EX3500 has the edge in high production.



11 E-P (computer-aided Engine-Pump) control system for optimum control of the engines and pumps. The electric enginespeed sensing and control system regulates the pump by detecting changes in engine speed as loads change. This permits effective use of engine horsepower. From tough job to light job, the operator can select the four work modes: S mode for heavy-duty operation, P mode for general operation, E mode for energy-saving operation, and L mode for light-duty operation.

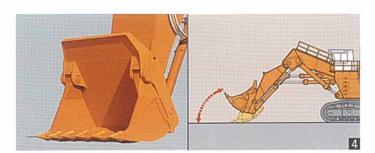


2 OHS (Optimum Hydraulic System), combined with six main pumps and two swing pumps, gives the actuators a high degree of independence to deliver smooth combined operations: swing/front, swing/travel, and travel/front.

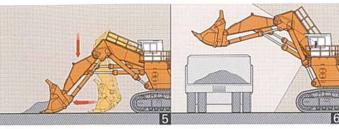




The electric engine governor (CENTRY™), teamed with a microcomputer, reduces fuel consumption and exhaust gas

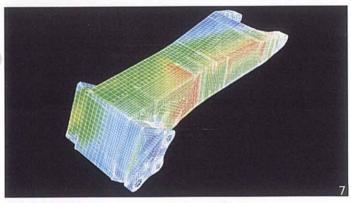


4 Functionally shaped bucket and ample tilt angle boost job efficiency. The bucket is shaped to ease scooping and loading. An ample tilt angle boosts bucket efficiency.



The Hitachi's renowned auto-leveling crowd mechanism brings operating ease and increases job efficiency by one-lever control. This allows quick leveling and easy foundation digging. 13 High-mounted forward-sloping cab gives good downward visibility. Operator eye level is a high 6.99 m (22'11"). The vessel of the dump truck being loaded is always clearly visible to the

Rugged Body Delivers More Than Enough Big Power



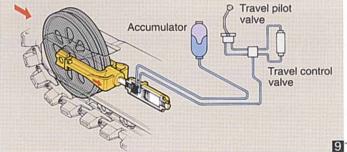
The machine structure, designed by FEM (Finite Element Method), uses high-tensile steel and bulkheads at important points. They are dependable enough for the toughest operations.

Loader boom and arm bosses are reshaped for increased durability.

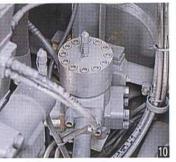


B High-pressure hoses at the link between boom and arm are well arranged and clamped to protect them from fraying





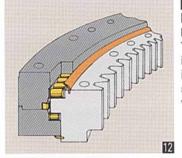
 Nitrogen gas-filled accumulators absorb abnormal track tension caused by earth packed inside the track. If track tension exceeds a certain limit, travel is automatically stopped. This enhances durability of the tracks.



Migh-pressure line filter is provided next to the pump to effectively eliminate contaminants.



Pump contamination sensor always monitors the pump to warn of contamination. If contaminated, the sensor alerts the operator.



Triple roller type swing bearing bears heavy loads, both vertical and horizontal. The induction-hardened internal gear and pinion are immersed in lubricant for smooth movements with less wear.



IE Shovel-type tracks use wide 1 270mm (4'2") triple grouser shoes for powerful travel.

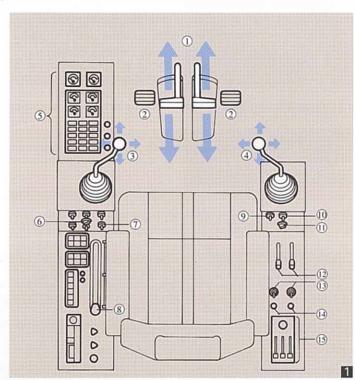
Operator Comfort and Convenience

Design efforts are focused on operator comfort.

The double floor structure and shock-absorbing rubber dampen shocks and vibration for pleasant operation.

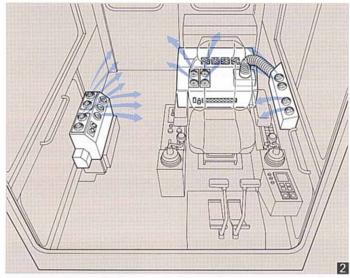
The pressurized cab has integrated headguard (per SAE FOPS) to protect the operator from falling objects.

The well arranged air conditioners maintain operator comfort all year around. Good visibility is another advantage.



- Cab Layout
- ① Travel Levers with Pedals
- ② Bucket Open/Close Pedals (Loading Shovel)
- ③ Swing/Arm Control Lever
- (4) Boom/Bucket Control Lever
- ⑤ Monitor Panel
- 6 Power Mode Switch
- ② Auto-Idling Switch
- ® Parking/Traveling Speed Selector Lever
- Fast Filling System Switch (option)
- (option)

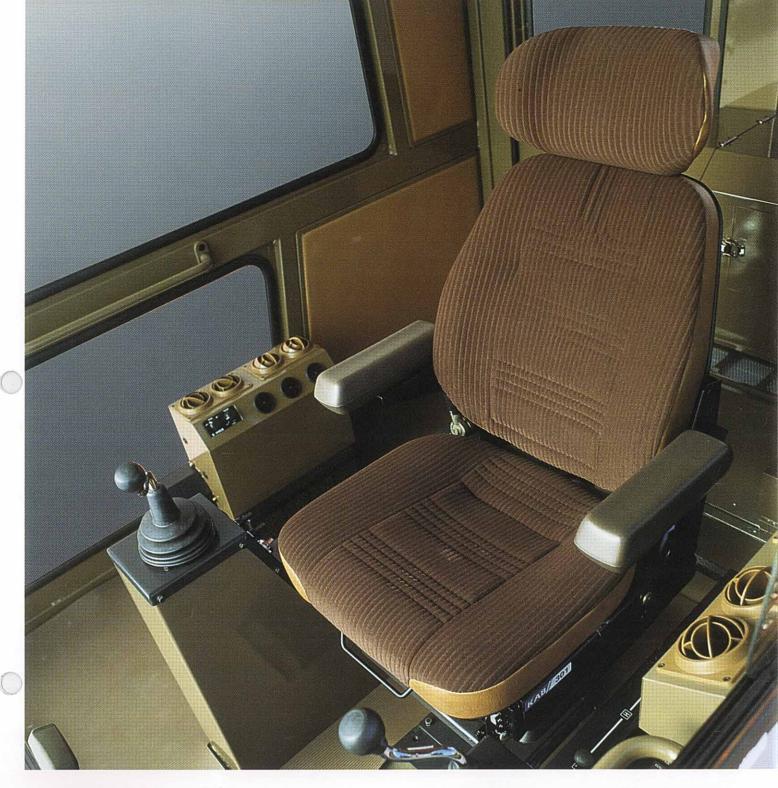
 (i) Level Luffing Switch
- (Circular Arc Retracting: Loading Shovel)
- (I) Emergency Engine Stop Switch
- 12 Engine Speed Control Lever 13 Engine Starter Switch
- Engine Starter
 Ether Switch
- (In Cold Conditions)
- (5) Air Conditioner Switch (option)



Dual air conditioners are provided in the cab to maintain cab pressure higher than the surrounding atmosphere. This seals out dirt and keeps clean air in. Cooling capacity is ample.



Easy-to-read monitors are ergonomically designed to allow for quick checking of machine conditions.





4 Emergency engine stop switch is provided inside the cab.



Emergency evacuation hammer and emergency rope are provided for getting out of the cab in case of an emergency.

• A 12 V power terminal board is installed behind the operator seat to power additional electrical instruments such as a radio transmitter.

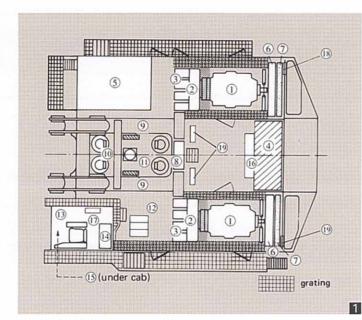
Service-Friendly Design

The key to big production with less downtime is maintenance.

The Hitachi service-friendly design keeps the EX3500 working on tough job sites.

Onboard devices are functionally laid out with ample servicing space to allow easy, efficient servicing and inspection.

Wide sidewalk is provided with handrails for servicing convenience.

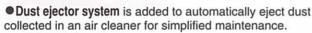


11 Functional Layout

- ① Engine×2
- 2 Pump Drive Unit×2
- 3 Hydraulic Pump×8
- 4 Hydraulic Oil Tank
- ⑤ Fuel Tank
- ⑥ Engine Radiator × 2 ① Hydraulic Oil Cooler×2
- ® Main Control Valve × 3 Swing Control Valve × 2
- ® Swing Device × 4



- (I) Center Joint
- ® Batteries
- (13) Cab
- (14) Air-Conditioner Unit
- 15 Tool Box (Under Cab)
- 16 Filters
- (17) Cooling Unit
- 18 Pump Drive Transmission Oil Cooler
- 19 Hydraulic Oil Cooler
- 2 A large open area, located at the center of the body, gives easy access to the engine, hydraulic equipment and electrical system for inspection and servicing convenience.

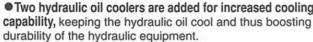




Engine-pump bulkhead is provided between the engine and pump.



4 The air drier eliminates moisture inside the air piping





5 Auto lubrication system (option) is provided for front joint pins and swing circle. This eliminates cumbersome daily lubrication.



6 A grease drum can be replaced effortlessly. The compartment floor slides down to lower a drum for simple, easy replacement.



☑ The centralized lubrication system: Fast filling system (option) allows easy replenishing and change of fuel, engine oil, hydraulic oil, etc. from the ground. There is no need to bring a pail can up to the machine.



8 High-mounted compact travel motors stay clear of the ground. This design protects the travel motors from damage by rocks and rough terrain.



- CONTRACTIONS

SPEC	IFICATIONS			
Model		EX3500-3		
ENGINE	Model & No.	Cummins KT38-C925,2units		
	Туре	Water -cooled,4-cycle,V-type, 12-cylinder,turbo-charged, direct injection diesel engine with CENTRY™		
	Flywheel horsepower			
	DIN 6271 NET kW(PS)	2×609(829)		
	SAE J1349 gross kW(HP)	2×656(880)		
	Piston displacement L(in³)	2×37.7(2 300)		
	Fuel tank capacity L(US gal,Imp gal)	5 000(1 321,1 100)		
II. HYDRAULICS	Main pumps	6 × Variable displacement axis piston		
	Swing pumps	2 × Variable displacement axis piston		
B B I	Max.oil pressure MPa(kgf/cm²,psi)	29.4(300,4 270)		
¥	Max.oil flow L/min(US gpm/lpm gpm)	6×550(145.3,121.0) 2×572(151.1,125.8)		
	Swing speed min ⁻¹ (rpm)	3.6		
NDERCARRIAGE	Travel speed high/low km/h (mph)	2.4(1.5)/1.8(1.1)		
	Max.traction force kN(kgf,lbf)	1 760(179 500,395 700)		
DER	Gradeability deg(%)	30(60)		
S	Parking brake(swing/travel)	Hydraulic with disc		

WEIGHTS AND GROUND PRESSURE

Loading Shovel

Equipped with 18.0m3(23.5vd3; PCSA heaped) bottom dump bucket.

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grousers	1 270 mm	334 000 kg	171 kPa
	(50")	(736 000 lb)	(1.74 kgf/cm²,24.7 psi)

Backhoe

Equipped with 10.0m (32'10") boom, 5.0m (16'5") arm and 17.0m3 (22.2yd3;PCSA heaped) bucket.

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grousers	1 270 mm	330 000 kg	171 kPa
	(50")	(728 000 lb)	(1.74 kgf/cm²,24.7 psi)

LOADING SHOVEL **ATTACHMENTS**

Bucket

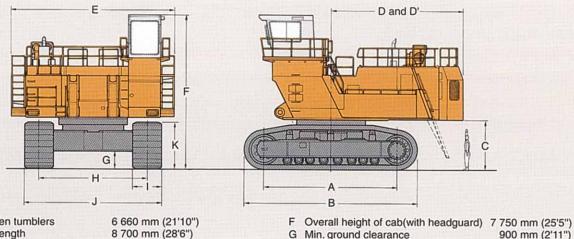
Capacity m³(yd³)	Width mm(ft in)	Weight kg(lb)	No. of teeth	
18.0(23.5) General purpase	3 930 (12'11")	25 600 (56 400)	6	
20.0(26.2) Light duty	3 930 (12'11") 26 400 (58 200)		6	
25.0(32.7) Coal handling	5 220 (17'2")	27 040 (59 600)	6	

BACKHOE ATTACHMENTS

Bucket

Capacity m³(yd³)		Width	Weight	No.
PCSA heaped	CECE heaped	mm(ft in)	kg(lb)	of teeth
17.0(22.2) General purpase	15.0(19.7) General purpose	3 200 (10'6")	14 500 (32 000)	5
19.3(25.2) Light duty	16.8(22.0) Light duty	3 590 (11'9")	15 800 (34 800)	6
25.0(32.7) Coal handling	22.0(28.8) Coal handling	4 200 (13'9")	18 000 (39 700)	5

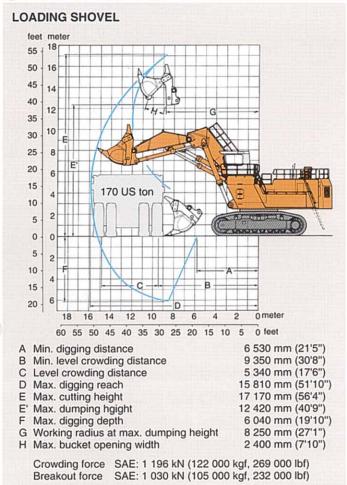
DIMENSIONS

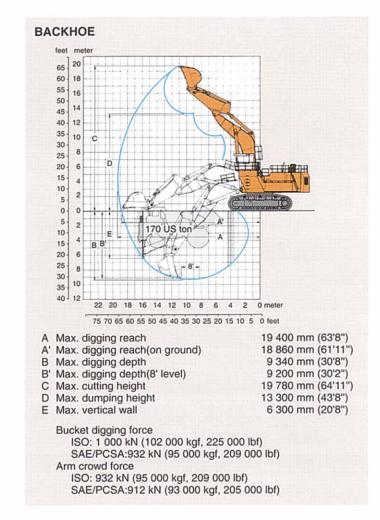


- A Distance between tumblers
- B Undercarriage length
- C Counterweight clearance
- D Rear-end swing radius
- D' Rear end length
- E Overall width

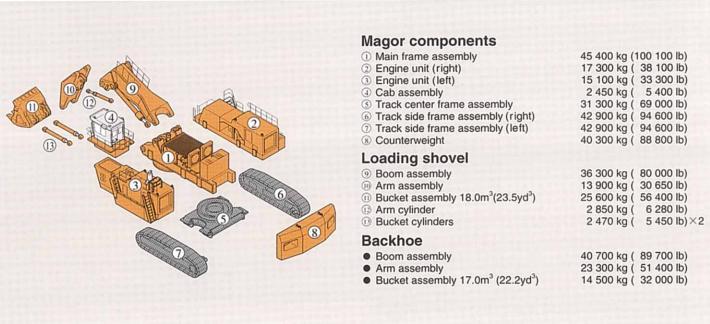
- 8 700 mm (28'6") 2 525 mm (8'3")
- 6 780 mm (22'3") 6 650 mm (21'10") 8 240 mm (27'0")
- G Min. ground clearance
- H Track gauge
- Track shoe width
- J Undercarriage width K Track height
- 5 500 mm (18'1") 1 270 mm (50") 6 770 mm (22'3") 2 305 mm (7'7")

WORKING RANGES





■WEIGHTS OF MAJOR COMPONENTS (approx.)



STANDARD EQUIPMENT

●Tool kit ●Suspension seat ●AM-FM radio ●Intermittent windshield wiper with window washer ●Defroster ●12-V power terminal board ●Pneumatic grease gun with hose reel ●Handrails and sidewalks ●Retractable-type ladder with spring-type balancer

☐ ■ OPTIONAL EQUIPMENT

●Auto-lubrication system (Lincoln) ●Fast-filling system (Wiggins) ●Air conditioner unit ●Cooling unit

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HITACHI

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.

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