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
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.

<table>
<thead>
<tr>
<th>Engine HP (gross)</th>
<th>1 312 kW (1 760 HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket Capacity</td>
<td>18.0 m³ (23.5 yd³)</td>
</tr>
<tr>
<td>Max. Digging Force</td>
<td>1 196 kN (122 000 kgf, 265 000 lbf)</td>
</tr>
<tr>
<td>Bucket Passes to Dump Truck</td>
<td>5-170 US ton</td>
</tr>
<tr>
<td></td>
<td>4-6 150 US ton</td>
</tr>
<tr>
<td>Backhoe</td>
<td></td>
</tr>
<tr>
<td>Engine HP (gross)</td>
<td>1 000 kN (102 000 kgf)</td>
</tr>
<tr>
<td>Bucket Capacity</td>
<td>17.0 m³ (22.2 yd³)</td>
</tr>
<tr>
<td>Max. Digging Force</td>
<td>1 000 kN (112 000 kgf)</td>
</tr>
<tr>
<td>Bucket Passes to Dump Truck</td>
<td>6-170 US ton</td>
</tr>
<tr>
<td></td>
<td>5-6 150 US ton</td>
</tr>
</tbody>
</table>
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.

E-P Control System

1. E-P (computer-aided Engine-Pump) control system for optimum control of the engines and pumps. The electric engine-speed sensing and control system regulates the pump by detecting changes in engine speed as loads change. This permits effective use of engine horsepower. From light 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.

OHS

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: swingfront, swing/travel, and travel/front.

Rugged Body Delivers More Than Enough Big Power

3. 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.

4. Loader boom and arm bosses are reshaped for increased durability.

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

6. 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.

7. The Hitachi’s renowned auto-leveling crowding mechanism brings operating ease and increases job efficiency by one-lever control. This allows quick leveling and easy foundation digging.

8. 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 operator.

9. 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.

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

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

12. Shovel-type tracks use wide 1 270mm (42'') triple grousers shoes for powerful travel.

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

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.
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.
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.

1 Functional Layout

1. Engine x 2
2. Pump Drive Unit x 2
3. Hydraulic Pump x 8
4. Hydraulic Oil Tank
5. Fuel Tank
6. Engine Radiator x 2
7. Hydraulic Oil Cooler x 2
8. Main Control Valve x 3
9. Swing Control Valve x 2
10. Swing Device x 4

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.

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

4 The air drier eliminates moisture inside the air piping for durability and reliability.

5 Two hydraulic oil coolers are added for increased cooling capability, keeping the hydraulic oil cool and thus boosting durability of the hydraulic equipment.

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

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

8 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.

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

Dust ejector system is added to automatically eject dust collected in an air cleaner for simplified maintenance.
WEIGHTS AND GROUND PRESSURE

Loading Shovel
Equipped with 18.0m³(23.5yd³); PCSA heaped) bottom dump bucket.

Shoe type
Triple grousers

Shoe width
1 270 mm (50")

Operating weight
330 000 kg (728 000 lb)

Ground pressure
171 kPa (1.74 kgf/cm², 24.7 psi)

Backhoe
Equipped with 10.0m³(32.10") boom, 5.0m (16.7') arm and 17.0m³ (22.2yd³); PCSA heaped) bucket.

Shoe type
Triple grousers

Shoe width
1 270 mm (50")

Operating weight
300 000 kg (660 000 lb)

Ground pressure
171 kPa (1.74 kgf/cm², 24.7 psi)

LOADING SHOVEL ATTACHMENTS

Bucket
Capacity [m³]
18.0(23.85)

Weight [kg]
25 600 (56 400)

No. of teeth
6

18.0(23.85)

General purpose
Capacity [m³]
3 930 (12'11")

Weight [kg]
26 400 (58 200)

No. of teeth
6

20.0(26.25)

Light duty
Capacity [m³]
3 930 (12'11")

Weight [kg]
24 000 (53 000)

No. of teeth
6

20.0(26.2)

Coal handling
Capacity [m³]
5 220 (17'2")

Weight [kg]
27 040 (59 900)

No. of teeth
6

BACKHOE ATTACHMENTS

Bucket
Capacity [m³]
17.0(22.02)

Weight [kg]
14 500 (32 000)

No. of teeth
5

17.0(22.2)

General purpose
Capacity [m³]
15.0(19.7)

Weight [kg]
15 800 (34 800)

No. of teeth
6

16.0(21.0)

Light duty
Capacity [m³]
3 900 (12'11")

Weight [kg]
18 000 (39 700)

No. of teeth
5

16.0(22.0)

Coal handling
Capacity [m³]
22 028(78")

Weight [kg]
27 900 (61 600)

No. of teeth
6

WEIGHTS OF MAJOR COMPONENTS (approx.)

Majors components
- Main frame assembly
- Engine unit (right)
- Engine unit (left)
- Cab assembly
- Track center frame assembly
- Track side frame assembly (right)
- Track side frame assembly (left)
- Counterweight

Loading shovel
- Boom assembly
- Arm assembly
- Bucket assembly 18.0m³(23.5yd³)
- Arm cylinder
- Bucket cylinders

Backhoe
- Boom assembly
- Arm assembly
- Bucket assembly 17.0m³(22.2yd³)

STANDARD EQUIPMENT
- Tool kit
- Suspension seat
- AM/FM radio
- Windshield wiper
- Window washer
- Defroster
- 12V power terminal board
- Pneumatic grease gun with hose reel
- Handrails and sidewalks
- Retractable-type ladder with spring-type balance

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