

## 15 Ton Excavator - Official Technical Overview & Datasheet

### EXECUTIVE SUMMARY

Designed for the rigorous demands of medium-scale infrastructure, quarry load-out, and deep utility excavation, the 15 TON EXCAVATOR (Model: XE1500) bridges the gap between compact agility and mass-class production. With an operating weight of 15,200 kg and a bucket capacity of 0.6 m<sup>3</sup> (SAE struck), this machine delivers a primary value proposition of 12% higher fuel efficiency compared to previous generation models while maintaining a breakout force of 110 kN. Target markets include road construction, residential development, agricultural land reshaping, and selective logging.

Leveraging a heavy-duty X-frame undercarriage and variable geometry turbocharging, the unit ensures stable lifting capacity (6,500 kg at ground level) and high-altitude performance up to 4,500 meters. The smart load-sensing hydraulic system reduces parasitic energy loss, translating directly to lower total cost of ownership (TCO) for fleet owners.



## STRUCTURAL INTEGRITY & POWERTRAIN

The chassis utilizes HIGH-TENSILE STRENGTH STEEL (Grade Q345B and Q460C) for the boom, arm, and upper frame, achieving a tensile strength of 650 MPa. The lower carriage is reinforced with triple-flanged track rollers and a sealed, lubricated track (SLT) chain to extend undercarriage life in abrasive environments. The powertrain is centered around a TURBOCHARGED DIESEL ENGINE (Isuzu 4HK1X or Cummins QSF3.8 option) meeting EPA Tier 4 Final and EU Stage V emission standards via a DOC+DPF after-treatment system. Net power output is rated at 86 kW (115 HP) at 2,100 rpm. The closed-center hydraulic system (Variable Displacement Piston Pumps) provides a total flow of 2 x 130 L/min, operating at a main relief pressure of 34.3 MPa, ensuring instantaneous implement response.

## KEY FEATURES & OPERATOR COMFORT

- ROPS/FOPS CABIN (LEVEL II): Vibration-dampened viscous mounts reduce cabin vibration by 42%. A wide-view overhead window and 0% front pillar obstruction provide exceptional trench visibility. Automatic air conditioning with bi-level filtration (HEPA grade) maintains positive cabin pressure.
- SMART CONTROL PANEL (IM 5.0): An 8-inch high-luminance LCD touchscreen integrates rear-view camera feed, fuel consumption tracking, and hydraulic oil temperature management. Supports Bluetooth machine health diagnostics and shift restriction.
- WORKING MODES (P/E/L/B): Power (Heavy lifting), Economy (General digging), Light (Precision), and Breaker (Attachment optimized). The system auto-adjusts pump absorption torque to match attachment requirements.
- ANTI-DRIFT VALVE & BOOM FLOAT: Standard hydraulic cross-sensing valves prevent boom drift during extended operation. Boom float feature allows for rapid grade finishing and snowplow attachment use.
- EMERGENCY LOWERING SYSTEM: Mechanical descent valves allow the operator to safely lower the boom and arm to the ground in the event of total engine or electrical failure.

## COMPLIANCE & SAFETY STANDARDS

The 15 Ton Excavator is fully certified to ISO 9001:2015 (Quality Management)

and ISO 14001 (Environmental). Safety compliance includes ISO 12117-2 (Tip-over protection structure/TOPS), SAE J/ISO 3449 (Level II FOPS), and meets the electromagnetic compatibility (EMC) directive (2014/30/EU). The machine carries CE marking for European markets and EAC for Eurasian Customs Union. Standard safety equipment includes a secondary engine shut-off switch (external), horn & rotating beacon pre-wiring, and a 2.5 kg ABC dry powder fire extinguisher bracket.

## TECHNICAL SPECIFICATIONS

The following technical data correspond to the standard configuration with a 0.6 m<sup>3</sup> backhoe bucket, 600 mm triple-grouser track shoes, and a full fuel tank.

Parameter	Specification
Engine Model	Isuzu 4HK1X (Tier 4 Final) or Cummins QSF3.8
Operating Weight (Standard)	15,200 kg (33,510 lbs)

Bucket Capacity (SAE struck)	0.6 m <sup>3</sup> (0.78 yd <sup>3</sup> )
Net Horsepower	86 kW @ 2,100 rpm (115 HP)
Max Digging Depth	5,740 mm (18.8 ft)
Max Dump Height	6,530 mm (21.4 ft)
Arm Digging Force (ISO)	72 kN (16,190 lbf)
Bucket Digging Force (ISO)	110 kN (24,730 lbf)
Swing Speed	11.5 rpm
Travel Speed (High/Low)	5.2 / 3.3 km/h (3.2 / 2.0 mph)
Fuel Tank Capacity	250 L (66 gal US)
Hydraulic Tank Capacity	120 L (31.7 gal US)

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border: 1px solid #ddd;'>Ground Clearance</td> <td style='padding: 8px;
border: 1px solid #ddd;'>440 mm (17.3 in)</td> </tr> <tr> <td style='padding:
8px; border: 1px solid #ddd;'>Track Shoe Width</td> <td style='padding: 8px;
border: 1px solid #ddd;'>600 mm (23.6 in)</td> </tr> </table>
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