

CE Certified Digger - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

Introducing the new CE Certified Digger, a compact yet formidable excavator engineered to redefine versatility in the modern construction landscape. Designed for the rigorous demands of urban infrastructure, agricultural earthmoving, and mining site preparation, this machine bridges the gap between traditional heavy machinery and site-sensitive operation. The integration of a high-efficiency powertrain with a compact footprint allows for unprecedented maneuverability in confined spaces, delivering high torque and breakout force that belies its size.

At the core of the Digger's design philosophy is the fusion of European safety directives with global manufacturing excellence. This unit is fully compliant with the latest CE machinery directives, ensuring immediate operability within the EU and international markets. Beyond compliance, the machine represents a significant reduction in total cost of ownership through minimized fuel consumption, extended service intervals, and a robust resale value, making it the definitive choice for contractors seeking a reliable, high-return investment.



STRUCTURAL INTEGRITY & POWERTRAIN

Built upon a high-tensile, X-frame steel chassis utilizing grade 400 high-strength steel, the CE Certified Digger offers exceptional durability and resistance to torsional stress during heavy lifting and digging cycles. The upper structure features an integrated rollover protection structure (ROPS) and falling-object protective structure (FOPS) certified canopy, ensuring operator safety is integral to the machine's skeletal design. The use of laser-cut, robotically welded components guarantees precision assembly and eliminates weak points inherent in traditional fabrication.

Power is delivered by a liquid-cooled, turbocharged diesel engine meeting EPA Tier 4 Final and EU Stage V emission standards. This powerplant is engineered for high-altitude performance and features a heavy-duty air filtration system,

ensuring reliable starts and consistent power delivery in dusty environments. The powertrain is matched to a closed-center, load-sensing hydraulic system that distributes flow precisely to the boom, arm, and bucket circuits, minimizing parasitic losses. This system boasts a maximum operating pressure of 4,500 psi, providing the necessary power for tough excavating while maintaining fuel economy at partial loads.

KEY FEATURES & OPERATOR COMFORT

- Advanced Load-Sensing Hydraulics: Features a variable-displacement piston pump that adjusts flow and pressure based on real-time demand. This system eliminates flow starvation to key functions during multi-function operations, ensuring smooth, simultaneous boom, arm, and swing control for faster cycle times.
- Spacious ROPS/FOPS Certified Cab: The pressurized cab features a wide entry door and reduced sound levels. The seat is fully adjustable with weight and lumbar support, while the low-effort pilot joysticks reduce operator fatigue. Advanced climate control maintains a constant temperature, ensuring productivity in extreme heat or cold.
- Smart Touch Control Panel: Equipped with a high-resolution 7-inch LCD monitor providing intuitive access to machine diagnostics, fuel consumption data, and maintenance intervals. The panel supports multiple language settings and includes a rear-view camera feed to eliminate blind spots, enhancing site

safety.

- Auto-Idle & Engine Shutdown: An advanced energy-saving feature that automatically reduces engine RPM to idle when hydraulic functions are inactive for a preset duration. This significantly reduces noise emissions and fuel consumption, lowering operating costs and environmental footprint.
- Hydraulic Quick-Coupler Ready: The auxiliary hydraulic lines are pre-plumbed to the arm tip, offering pressure relief and a parallel flow path. This allows for rapid attachment changes for hammers, augers, and grapples, transforming the machine into a multi-tool platform without leaving the cab.

COMPLIANCE & SAFETY STANDARDS

The CE Certified Digger has undergone rigorous type-examination and conformity assessment to meet the Essential Health and Safety Requirements (EHSR) of the Machinery Directive 2006/42/EC. The safety system incorporates redundant load moment indicators, travel alarms, and a secondary braking system for safe operation on slopes. The design follows ISO 12100 for risk assessment and ISO 3457 for protection against moving parts. The engine platform is certified to ISO 8178 for emission control, and the entire manufacturing process is audited to ISO 9001:2015 quality management standards, ensuring consistent global production quality.

TECHNICAL SPECIFICATIONS

Below are the standard technical parameters for the base model. All specifications are measured under ISO 9249 standards. Values may vary depending on configuration, bucket selection, and operational conditions.

Parameter	Specification
Engine Model	Cummins QSB 4.5 (or Isuzu 4JJ1)
Engine Power (Net)	74 kW (99 hp) @ 2000 rpm
Operating Weight	9,500 kg (20,944 lbs)
Standard Bucket Capacity	0.4 - 0.6 m ³
Max. Digging Depth	4,150 mm (163 in)
Max. Dump Height	

5,650 mm (222 in)	
Max. Breakout Force	
68 kN (15,287 lbf)	
Hydraulic Flow	
2 x 100 L/min	
System Pressure	
31.4 MPa (4,550 psi)	
Travel Speed (High/Low)	
5.0 / 3.0 km/h	