

Next-Generation Backhoe Excavator - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

The newly developed Backhoe Excavator represents a significant leap forward in heavy equipment design, engineered to deliver exceptional performance across the most demanding construction, mining, and agricultural applications. This versatile machine integrates a heavy-duty chassis with a high-torque powertrain and an advanced hydraulic system, ensuring maximum productivity and efficiency for trenching, material handling, and site preparation tasks. Its robust design philosophy prioritizes durability and reliability, making it an indispensable asset for contractors and project managers seeking to optimize their operational capabilities.

Built upon a legacy of engineering excellence, this backhoe excavator is precisely positioned to meet the rigorous demands of the modern job site. It offers a comprehensive solution that balances raw power with refined control, allowing operators to work faster and more accurately. From large-scale infrastructure projects and open-pit mining operations to precision landscaping and utility installation, the machine's adaptability and performance ensure it delivers superior value and a rapid return on investment.



STRUCTURAL INTEGRITY & POWERTRAIN

The structural integrity of this machine is defined by its use of high-grade steel in the chassis and boom assembly, providing the foundational strength required for heavy-duty excavation and loader operations. The undercarriage and frame are engineered to withstand the torsional stresses and impact loads characteristic of harsh environments, ensuring long-term service life and operational reliability. This robust construction is complemented by a powerful engine, featuring a displacement of 6.5 liters and a maximum torque of 637 Nm, providing the high-torque pushing power essential for penetrating tough ground conditions .

The powertrain is managed by a sophisticated automatic transmission system offering high and low travel speeds, with a maximum speed of 5.5 km/h in high

range, optimizing machine mobility across varied terrain . The new backhoe is also designed to meet stringent emission standards, such as the U.S. EPA Tier 4 Final, utilizing advanced after-treatment technologies like selective catalytic reduction (SCR) and diesel oxidation catalysts to ensure compliance while maintaining high performance . Furthermore, the hydraulic system is engineered for peak efficiency, utilizing a load-sensing piston pump with variable flow that automatically adjusts hydraulic power to meet work demands, reducing parasitic losses and improving fuel economy .

KEY FEATURES & OPERATOR COMFORT

- **Advanced Load-Sensing Hydraulics:** The machine features a load-sensing hydraulic system that provides precise, on-demand power distribution to the loader and backhoe functions. This advanced system allows operators to adjust flow rates for various attachments and customize settings like loader bucket kickout and return-to-dig functions for maximum efficiency .
- **ROPS/FOPS Certified Cab:** The operator's cab is built to the highest safety standards, meeting ROPS (Roll Over Protective Structure) and FOPS (Falling Object Protective Structure) certifications to ensure operator protection in hazardous environments . The redesigned cab features enhanced visibility through larger mirrors and LED work lights, along with an upgraded 7-inch touchscreen display for machine control customization .
- **Smart Control & Connectivity:** The machine is equipped with a

next-generation electronic architecture that includes a touchscreen display enabling operators to independently adjust modulation and response settings for each hydraulic function — including boom, stick, bucket, and swing . Standard integrated telematics, such as Product Link, provide comprehensive fleet management capabilities by allowing customization of machine operating data gathering .

- Redesigned Operator Environment: The cab features ergonomic joystick controls with options for seat-mounted or pod-mounted configurations, providing enhanced control and comfort . The inclusion of Bluetooth connectivity and customizable control settings ensures that operators can tailor the machine's behavior to specific preferences and job requirements, reducing fatigue and improving productivity .

COMPLIANCE & SAFETY STANDARDS

This Backhoe Excavator has been developed in strict accordance with global industry standards for safety, quality, and environmental stewardship. The machine is fully compliant with U.S. EPA Tier 4 Final and EU Stage V emission regulations, ensuring low emissions and environmental responsibility . In addition to the ROPS/FOPS certified cab, the machine incorporates advanced safety features such as a standard rearview camera to improve site awareness and optional side-view cameras . The design and manufacturing processes

adhere to ISO 9001 quality management standards, guaranteeing a product that meets the highest benchmarks for reliability and durability.

TECHNICAL SPECIFICATIONS

The following technical parameters provide a detailed overview of the machine's core components and operational capabilities.

Parameter	Specification
Engine Type	4-Cycle Water-Cooled, Direct Injection
Number of Cylinders	6
Max. Torque	637 Nm @ 1,800 rpm
Displacement	6.494 L
Operating Weight	

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