Tracked Excavator - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

Engineered for the most demanding job sites, this next-generation tracked excavator redefines industry standards for power, precision, and durability. Purpose-built for heavy-duty applications in construction, mining, and large-scale agriculture, it delivers class-leading digging forces and rapid cycle times while maintaining exceptional fuel efficiency. The machine excels in a variety of tasks from mass excavation and trenching to demolition and material handling, ensuring maximum return on investment for contractors and fleet operators.

At the heart of this excavator is a philosophy of holistic engineering, where every component is optimized for synergy. The combination of a high-torque, emissions-compliant engine, a state-of-the-art hydraulic system, and a rugged, durable undercarriage ensures unwavering performance in the harshest conditions. This commitment to quality is matched by an industry-leading operator environment that prioritizes comfort, safety, and intuitive control, allowing for fatigue-free operation and peak productivity throughout the longest work shifts.

STRUCTURAL INTEGRITY & POWERTRAIN

The foundation of the machine is its robust chassis, constructed from high-tensile, abrasion-resistant steel to withstand the stresses of heavy lifting and rough terrain. The undercarriage features heavy-duty components, including guided track rollers, sealed and lubricated track chains, and a durable dozer blade with floating position, ensuring long-term reliability and superior stability even when lifting maximum loads . The upper structure is designed for durability, with reinforced boom and arm pivot points featuring cast steel sections to handle high breakout forces and torsional loads .

The powertrain is centered around a proven, high-performance diesel engine—for example, a globally recognized Cummins or similar Tier 4 Final / Stage V compliant powerplant . This engine delivers robust horsepower and torque

while meeting the strictest global emission standards. The advanced hydraulic system utilizes a variable-displacement, load-sensing pump architecture, such as LUDV (Load Independent Flow Distribution), which intelligently directs oil flow and pressure precisely where it is needed, optimizing power, speed, and fuel consumption for any task . The hydraulic system also incorporates regeneration circuits that recycle oil across cylinders to enhance cycle times and efficiency .

KEY FEATURES & OPERATOR COMFORT

- Load-Sensing Hydraulic System: The advanced load-sensing hydraulics adjust oil flow to match the load demand, providing precise, smooth control. This system ensures that joystick movements yield consistent responses regardless of the load, dramatically improving operator control and reducing fuel consumption by up to 20% in demanding applications .

- 3-Point Kinematics Bucket Linkage: The innovative 3-bolt, 3-point kinematics design extends the bucket's rotation angle to 200 degrees. This provides 10% more range than conventional linkages, increasing vertical digging depth and breakout forces, thereby reducing the need to reposition the machine and boosting overall efficiency .

- ROPS/FOPS Certified Operator Cab: The spacious, sound-dampened cab is certified to ROPS (Roll-Over Protective Structure) and FOPS (Falling Object Protective Structure) standards. It features an industry-leading, air-cushioned,

heated seat with joystick-mounted controls for superior comfort and low in-cab noise levels of approximately 67dB(A) . A large, multi-functional 7-inch color display with jog dial provides intuitive access to machine settings, attachment controls, and rear-view camera feeds .

- Auto-Stop & Auto-Idle Systems: To minimize environmental impact and operating costs, the excavator includes intelligent auto-stop and auto-idle functions. The auto-idle system reduces engine speed when the controls are inactive, while the auto-stop function can shut the engine off after a period of inactivity, providing up to 5% additional fuel savings and reducing unnecessary service hours .

- Advanced Work Area Lighting & Signalling: Superior visibility and site safety are ensured by durable, long-life LED work lights mounted on the chassis, boom, and cab, which provide excellent illumination for around-the-clock operation . An optional Active Working Signal (AWS) feature uses a red LED strip to clearly indicate when the machine is operational, alerting ground personnel and enhancing jobsite safety .

COMPLIANCE & SAFETY STANDARDS

This tracked excavator is meticulously engineered and manufactured to meet the most stringent global quality, safety, and environmental standards. The machine's design and production processes are certified to ISO 9001 quality

management standards. Full compliance is achieved with EPA Tier 4 Final and EU Stage V emission regulations for all engine variants . Operator safety is paramount, with the cab meeting or exceeding ISO 12117-2 for ROPS/FOPS protection. Additional certifications and design features ensure compliance with CE, EAC, and other regional machinery safety directives, with all hydraulic and electrical systems designed to applicable ISO and EN standards to guarantee safe, reliable, and efficient operation.

TECHNICAL SPECIFICATIONS

The following technical parameters are provided for the core model of the tracked excavator series. Specifications may vary based on the specific regional configuration, optional equipment, and attachments chosen. All values are measured in accordance with industry-standard testing procedures.

<table border='1' style='border-collapse: collapse; width: 100%;'><tr><th style='padding: 8px; text-align: left; background-color: #f2f2f2;'>Parameter</th><th style='padding: 8px; text-align: left; background-color: #f2f2f2;'>Specification</th></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Engine Model</td><td style='padding: 8px; border: 1px solid #ddd;'>Cummins 6BTAA 5.9 (or equivalent Tier 4 Final/Stage V engine) </td></tr><tr><td style='padding: 8px; border: 1px solid

#ddd;'>Engine Gross Power</td><td style='padding: 8px; border: 1px solid #ddd;'>110 kW (148 hp) @ 2000 RPM </td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Operating Weight</td><td style='padding: 8px; border: 1px solid #ddd;'>22,200 kg (approx.) </td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Max. Bucket Capacity</td><td style='padding: 8px; border: 1px solid #ddd;'>1.2 m^3 (1.57 yd^3) </td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Max. Dig Depth</td><td style='padding: 8px; border: 1px solid #ddd;'>6.0 - 6.5 m (19.7 - 21.3 ft) </td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Hydraulic System</td><td style='padding: 8px; border: 1px solid #ddd;'>Load-Sensing with LUDV and Regeneration </td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Cab Noise Level</td><td style='padding: 8px; border: 1px solid #ddd;'>< 68 dB(A) </td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Fuel Tank Capacity</td><td style='padding: 8px; border: 1px solid #ddd;'>Value dependent on final configuration</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Undercarriage</td><td style='padding: 8px; border: 1px solid #ddd;'>Heavy-duty, sealed and lubricated track</td></tr></table>