

Financing Support Digger - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

Designed as the cornerstone of modern heavy civil construction and surface mining operations, the Financing Support Digger represents a paradigm shift in mass excavation efficiency and lifecycle cost management. Engineered specifically for the rigorous demands of 24/7 quarrying, large-scale earthmoving, and heavy infrastructure development, this machine bridges the gap between brute force and intelligent energy management. The unit is purpose-built to deliver exceptional productivity in the toughest materials, from compacted clay and limestone to shot rock, ensuring that project timelines are not only met but exceeded while significantly reducing operational expenditure.

At the heart of its value proposition is a holistic approach to ownership that extends beyond the machine's physical capabilities. The 'Financing Support' nomenclature embodies our commitment to providing flexible, tailored acquisition solutions that align with your project's financial lifecycle, making top-tier German engineering accessible without compromising on quality. By integrating a heavy-duty powertrain with an advanced load-sensing hydraulic system and a safety-centric cab design, the machine empowers operators to extract maximum performance with minimal fatigue, ensuring that capital

deployment directly translates to sustainable, profitable production outputs.



STRUCTURAL INTEGRITY & POWERTRAIN

The backbone of the Financing Support Digger is its ultra-durable, high-tensile steel monoblock chassis, fabricated from WELDOX 700-grade plates. This material selection provides an exceptional strength-to-weight ratio, ensuring the upper structure and undercarriage can withstand extreme torsional stresses and impact loads encountered in hard rock applications. The front attachment components utilize cast-steel nodes with reinforced pivot points, guaranteeing a minimum service life of 20,000 hours under severe duty cycles, far exceeding industry averages and minimizing downtime for structural repairs.

Propelling this robust frame is a state-of-the-art, turbocharged and air-to-air

aftercooled diesel engine from the Cummins X-Series platform. This engine platform is renowned for its low-end torque characteristics, delivering 573 horsepower at 1,800 RPM, which is the sweet spot for hydraulic pump engagement. The powertrain is fully compliant with EPA Tier 4 Final and EU Stage V emission regulations, utilizing a Selective Catalytic Reduction (SCR) system combined with a Diesel Particulate Filter (DPF). The hydraulic system is a closed-center, pressure-compensated design capable of generating over 6,500 psi, ensuring simultaneous multi-function movements — such as booming, crowding, and swinging — without any perceptible power loss, thereby optimizing the machine's cycle times.

KEY FEATURES & OPERATOR COMFORT

- Smart Hydraulic Energy Recovery (SHER) System: The machine is equipped with a proprietary regenerative valve system that captures and stores energy during the boom lowering cycle. This stored energy is released during the swing initiation phase, reducing engine load and achieving fuel savings of up to 15% compared to standard excavators, drastically lowering cost per ton.
- ROPS/FOPS Level 2 Certified Cab: The pressurized cab is engineered with integrated falling object protective structure (Level 2) and a rollover protective structure. It features a 7-inch thick laminated glass windshield, a fully adjustable, heated air-suspension seat with five-point harness, and a sound-suppressed interior maintaining cabin noise levels below 69 dB(A), ensuring operator safety

and concentration.

- **Telematics & Remote Diagnostics:** Integrated with advanced telematics, the machine provides real-time data on machine health, fuel consumption, and production metrics. The system features predictive maintenance alerts and allows for remote software calibration of the hydraulic parameters to suit specific material densities without requiring on-site technician visits.
- **Advanced Reverse-Sensing Radar System:** To mitigate blind-spot risks, the Financing Support Digger includes a 360-degree multi-sensor array with object detection algorithms. This system automatically restricts swing speed and travel functions if a ground-level obstruction is detected within a 5-meter radius, providing an unparalleled level of site safety for ground support personnel.
- **High-Capacity Self-Lubricating Pivot Pins:** All major articulation points utilize high-strength steel pins with integrated, sealed grease reservoirs that automatically lubricate the bushings at set intervals. This extends grease change intervals to 500 hours and eliminates daily manual greasing, maximizing machine uptime and reducing maintenance costs.

COMPLIANCE & SAFETY STANDARDS

The Financing Support Digger has been meticulously engineered to meet and exceed the most stringent global regulatory frameworks for heavy equipment. It carries the CE marking for the European Economic Area, confirming

compliance with health, safety, and environmental protection standards. The engine and emission control systems are fully certified under the US EPA Tier 4 Final and EU Stage V regulations, ensuring global operational versatility. The structural design and welding procedures are executed in accordance with ISO 9001:2015 quality management protocols, with specific load-testing certifications adhering to ISO 10532 for recovery attachments and ISO 20474 for earth-moving machinery safety. Additional certifications include the Australian AS/NZS 1418 crane-specific safety standards and the Canadian CSA Z96-15 for high-visibility marking, ensuring compliance for sites requiring these specifications.

TECHNICAL SPECIFICATIONS

All performance data listed in the table below are based on SAE J1349 and ISO 9249 standards. The specifications reflect standard OEM configuration with 10.5-foot heavy-duty boom, 7.0-foot arm, and heavy-duty track shoes. Actual performance may vary depending on ground conditions, altitude, and attachment selection.

Parameter

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 X12 (6-Cylinder Inline)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Net Power (ISO 9249)</td><td style='padding: 8px; border: 1px solid #ddd;'>573 hp (427 kW) @ 1,800 rpm</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Operating Weight (Standard Boom)</td><td style='padding: 8px; border: 1px solid #ddd;'>196,200 lbs (89,000 kg)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Maximum Digging Depth</td><td style='padding: 8px; border: 1px solid #ddd;'>25 ft 6 in (7.78 m)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Maximum Reach at Ground Level</td><td style='padding: 8px; border: 1px solid #ddd;'>37 ft 11 in (11.56 m)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Maximum Bucket Breakout Force (ISO)</td><td style='padding: 8px; border: 1px solid #ddd;'>71,200 lbf (317 kN)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Maximum Arm Crowd Force (ISO)</td><td style='padding: 8px; border: 1px solid #ddd;'>58,400 lbf (260 kN)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Hydraulic System Pressure</td><td style='padding: 8px; border: 1px solid #ddd;'>6,530 psi (450 bar)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Fuel Tank Capacity</td><td style='padding: 8px; border: 1px solid #ddd;'>265 US gal (1,003	
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