30 ton Excavator - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

Engineered for the most punishing environments, the 30 TON EXCAVATOR represents a paradigm shift in mass excavation efficiency. This machine bridges the critical gap between compact utility models and ultra-large mining shovels, delivering a precise balance of 190 horsepower and a rugged operating weight of 30,000 kg. Targeting the Tier-1 construction, quarry, and large-scale agricultural land clearing sectors, this platform offers a 15% improvement in fuel efficiency compared to previous generation 30-ton models, thanks to advanced load-sensing hydraulics.

Built for high ROI in infrastructure and sub-contracting fleets, the 30 TON EXCAVATOR features an X-frame undercarriage constructed from high-tensile DB685 steel. The machine is optimized for heavy lifting (over 15,000 kg breakout force) while maintaining smooth boom control for pipe laying. Our primary value proposition is simple: maximize uptime through structural redundancy and a sealed, pressurized operator sanctuary.

STRUCTURAL INTEGRITY & POWERTRAIN

The chassis of the 30 TON EXCAVATOR utilizes ROLLED HOMOGENEOUS ARMOR (RHA) grade steel for the main carbody and track frames, specifically DB685 and BR1500HS grades known for their fatigue resistance in rock applications. The reinforced swing frame incorporates a 3-bearing arrangement to absorb torsional stress during heavy side-lifting.

Power comes from a heavy-duty CUMMINS X9 or ISUZU GH-6U turbocharged, aftercooled diesel engine. Rated at 190 kW (255 HP) at 1,950 rpm, this powerplant meets EPA TIER 4 FINAL and EU STAGE V standards without compromising lugging ability. The hydraulic system is a CLOSED-LOOP LOAD SENSING (CLSS) system generating 5,200 psi (36 MPa) at the boom foot. This system prioritizes flow to the implement that demands it most, reducing

hydraulic cross-talk and improving multi-function precision (e.g., booming while curling the bucket). Cooling is managed by a variable-speed hydraulic fan that reverses automatically to purge debris.

KEY FEATURES & OPERATOR COMFORT

- SMART HYDRAULICS MANAGEMENT (SHM): Adaptive control valves automatically detect the working attachment (hammer, coupler, or bucket) and adjust oil flow and pilot pressure instantly to prevent stalling and optimize cycle times.

- ROPS/FOPS CERTIFIED CAB (Level 2): The pressurized cab reduces internal decibels to 69 dB(A). Features a viscous-damped mounting system to isolate the operator from the carbody vibration, plus a tilt-up console for easy ingress/egress.

- 8-INCH LCD TOUCH MONITOR: IP68-rated screen providing real-time telematics, fuel consumption graphs, and service intervals. Includes rear-view camera integration and air conditioning diagnostics.

- HEAVY DUTY GREASED TRACK (HDGT): Sealed and lubricated track chain (SALT) with 600 mm triple-grouser shoes. The recoil spring mechanism features a travel resistance of 350 kN, preventing track derailment in rocky underfoot.

- AUTO IDLE & AUTO SHUTDOWN: Electronic controls reduce engine RPM to idle after 5 seconds of no lever movement, saving up to 20% in idle fuel consumption. Auto shutdown activates after extended idle period to comply

with anti-idling regulations.

COMPLIANCE & SAFETY STANDARDS

The 30 TON EXCAVATOR is globally certified to meet strict machinery directives. It holds CE MARKING (EN 474-1:2018), ISO 9001:2015 quality management certification, and ANSI/SAE J1176 external fire suppression readiness. Safety features include a secondary accumulator for emergency boom lowering, four anti-skid walkways with 45-degree handrails, and a falling object protective structure (FOPS) Level II per ISO 10262. The hydraulic lockout lever cuts all pilot pressure when disengaged to prevent accidental movement during fueling or maintenance. All glass is laminated and shatter-resistant, and the cab includes an emergency hammer.

TECHNICAL SPECIFICATIONS

Below are the certified performance parameters measured according to ISO 9248 standards for the standard mass excavation configuration.

<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 X9 / Isuzu GH-6U</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Engine Power (Net)</td><td style='padding: 8px; border: 1px solid #ddd;'>190 kW / 255 HP @ 1,950 rpm</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Operating Weight</td><td style='padding: 8px; border: 1px solid #ddd;'>30,200 kg (66,580 lbs)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Bucket Capacity (Std)</td><td style='padding: 8px; border: 1px solid #ddd;'>1.4 m³ (1.83 yd³)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Max Digging Reach</td><td style='padding: 8px; border: 1px solid #ddd;'>10,850 mm (35 ft 7 in)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Max Digging Depth</td><td style='padding: 8px; border: 1px solid #ddd;'>7,380 mm (24 ft 2 in)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Max Breakout Force (Bucket)</td><td style='padding: 8px; border: 1px solid #ddd;'>18,500 kgf (181 kN)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Hydraulic Flow (Main)</td><td style='padding: 8px; border: 1px solid #ddd;'>2 x 280 L/min (74 gpm)</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 (24 in)</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Swing Speed</td><td style='padding: 8px;

border: 1px solid #ddd;'>11.2 rpm</td></tr><tr><td style='padding: 8px; border: 1px solid #ddd;'>Ground Pressure</td><td style='padding: 8px; border: 1px solid #ddd;'>52.8 kPa (7.7 psi)</td></tr></table>