

ISO 9001 Digger - Official Technical Overview & Datasheet

EXECUTIVE SUMMARY

Engineered for the most demanding job sites, the ISO 9001 Digger represents a paradigm shift in medium-duty earthmoving equipment. Targeting the construction, quarry mining, and large-scale agricultural sectors, this machine bridges the gap between compact utility loaders and full-sized hydraulic excavators. Its primary value proposition lies in reducing total cost of ownership through a 15% improvement in fuel efficiency and a modular design that cuts major service intervals by 20% compared to industry benchmarks.

Certified under the rigorous ISO 9001:2025 quality management framework, every unit undergoes a 72-hour factory burn-in test. Whether trenching for urban infrastructure, backfilling agricultural drainage systems, or loading shot rock in small mines, the ISO 9001 Digger offers a class-leading power-to-weight ratio and a fully integrated telematics system for fleet asset management.



STRUCTURAL INTEGRITY & POWERTRAIN

The chassis utilizes DOMEX-700 grade high-tensile steel with a Brinell hardness rating of 480 HBW, providing 30% greater impact resistance against rock strikes and torsional stress. The main frame features a double-welded box-section design with integrated cross-member bracing, certified for 10,000 hours of fatigue life under cyclic loading conditions.

Power comes from a turbocharged Isuzu 4JJ1X diesel engine, delivering 74 kW (99 hp) at 2,200 rpm. The engine meets EPA Tier 4 Final and EU Stage V emission standards through a maintenance-free diesel oxidation catalyst (DOC) and a selective catalytic reduction (SCR) system with auto-regeneration. The closed-center, load-sensing hydraulic system generates 185 l/min at 350 bar, achieving a 92% overall efficiency rating. An automatic dual-speed travel

system provides 5.1 km/h low and 9.8 km/h high range.

KEY FEATURES & OPERATOR COMFORT

- Load-Sensing Flow Sharing Hydraulics: Electronically controlled negative-flow control system delivers on-demand flow to implements, reducing parasitic losses by 18% while enabling simultaneous boom, arm, and bucket operations with zero drift.
- ROPS/FOPS Level 2 Cab: One-piece 10mm polycarbonate front windshield and 8mm steel roof plate certified to ISO 3449 and ISO 3471. Cab features 75 dBA interior noise rating, a high-back air-suspension seat with heated lower cushion, and a pressurized dual-stage HEPA cabin filter.
- 8-Inch Smart Control Panel: Fully sealed IP67 touchscreen display providing real-time machine diagnostics, fuel burn history, grade indicator (with optional 2D laser receiver), and rear/side camera split-view. Includes a keyless start with 5-digit operator PIN code for anti-theft and usage tracking.
- Quick-Coupler Ready Arm: Integrated factory piping for hydraulic quick couplers (pin grabber type) with a pressure relief interlock preventing accidental bucket detachment. Arm tip digging force measures 52 kN, and bucket breakout force is 78 kN.
- Auto-Lube System (Optional): Programmable centralized greasing system with 4-liter reservoir and five circuit zones, automatically lubricating all pivot pins every 4 operating hours, extending bushing life by up to 2,500 hours.

COMPLIANCE & SAFETY STANDARDS

The ISO 9001 Digger is manufactured under ISO 9001:2025 Quality Management Systems certification. It complies with CE Machinery Directive 2006/42/EC, EPA Tier 4 Final (USA), EU Stage V (Europe), and Australia AS/NZS 2294.1. Safety features include: ISO 13849-1 certified PLd hydraulic lock valves on all lift cylinders; automatic parking brake engagement when cabin door opens; a secondary engine shutdown switch located on the left fender; and anti-intrusion mesh on all glass surfaces meeting ISO 10262 Level II. The machine also includes a standard fire suppression system port and a 2kg ABC dry powder extinguisher mounted behind the operator seat.

TECHNICAL SPECIFICATIONS

The following table outlines the certified operational parameters for the ISO 9001 Digger. All values are based on standard configuration with 600mm triple-grouser track shoes and a 0.65 m³ heavy-duty digging bucket.

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<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;
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Specification	
Engine Model	Isuzu 4JJ1X Turbo Diesel
Net Power (ISO 14396)	74 kW (99 hp) @ 2,200 rpm
Operating Weight (w/ ROPS)	8,950 kg (19,730 lbs)
Bucket Digging Force (ISO 6015)	78 kN (17,535 lbf)
Arm Digging Force (ISO 6015)	52 kN (11,690 lbf)
Max Digging Depth	4,520 mm (14 ft 10 in)
Max Reach at Ground Level	6,850 mm (22 ft 6 in)
Max Dump Height	5,120 mm (16 ft 10 in)
Swing Speed (full circle)	11.2 rpm

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#ddd;'>Hydraulic Flow (main pumps)</td> <td style='padding: 8px; border:
1px solid #ddd;'>2 x 92.5 l/min (total 185 l/min)</td></tr><tr><td
style='padding: 8px; border: 1px solid #ddd;'>Fuel Tank Capacity</td> <td
style='padding: 8px; border: 1px solid #ddd;'>140 L (37 US
gal)</td></tr><tr><td style='padding: 8px; border: 1px solid
#ddd;'>Hydraulic Tank Capacity</td> <td style='padding: 8px; border: 1px
solid #ddd;'>75 L (19.8 US gal)</td></tr><tr><td style='padding: 8px; border:
1px solid #ddd;'>Ground Clearance</td> <td style='padding: 8px; border: 1px
solid #ddd;'>360 mm (14.2 in)</td></tr><tr><td style='padding: 8px; border:
1px solid #ddd;'>Track Shoe Width (standard)</td> <td style='padding: 8px;
border: 1px solid #ddd;'>600 mm (23.6 in) triple-grouser</td></tr><tr><td
style='padding: 8px; border: 1px solid #ddd;'>Emission Standard</td> <td
style='padding: 8px; border: 1px solid #ddd;'>EPA Tier 4 Final / EU Stage
V</td></tr></table>

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