

## 0.8 ton Excavator - Official Technical Overview & Datasheet

### EXECUTIVE SUMMARY

Engineered for the most restricted urban corridors and agricultural renovations, the 0.8 Ton Excavator redefines micro-class productivity. With an operating weight of just 780 kg and retractable undercarriage, this unit effortlessly navigates doorways, greenhouses, and narrow trenches while delivering breakout forces comparable to 1.2-ton legacy machines. Primary markets include residential basement excavation, utility trenching, orchard maintenance, and livestock pen cleaning across EMEA and APAC regions.

Leveraging a closed-center load-sensing hydraulic system (18.2 L/min pump flow), the machine achieves simultaneous boom, arm, and bucket control without power drop. The Tier 4 Final / Stage V compliant diesel powertrain ensures 500-hour service intervals, while the foldable ROPS structure enables easy transport in standard pickup trucks. Total cost of ownership remains 23% lower than pneumatic-equivalent solutions due to reduced fuel burn (1.1 L/h typical) and modular bushing replacements.



## STRUCTURAL INTEGRITY & POWERTRAIN

The chassis utilizes fully welded HARDOX 450 steel plate (3mm main frame, 2mm track frame) offering 2.1x yield strength versus standard mild steel. A one-piece bottom guard integrates into the blade cylinder mounts, preventing torsional flex during backfilling. The track system comprises manganese steel chain links with replaceable rubber pads (optional steel grouser).

Power comes from a Kubota D902 (or equivalent 3-cylinder, water-cooled diesel) rated at 9.6 kW (12.9 HP) @ 2,500 rpm. The engine mates to a variable-displacement axial piston pump driving separate circuits for travel (2 x 8.4 kN track force), implement, and swing. Hydraulic cooling is ensured by a plate-fin radiator with independent electric fan, maintaining oil temperature below 75°C at 40°C ambient. A 12V 40Ah battery supports cold-start assist

down to -15°C.

#### KEY FEATURES & OPERATOR COMFORT

- ZERO TAIL SWING & RETRACTABLE UNDERCARRIAGE: Superstructure remains within track width (600 mm fixed / 450 mm retracted), allowing rotation within 1.2-meter corridors. Hydraulic track expansion/retraction is foot-pedal actuated from cab.
- LOAD-SENSING AUXILIARY HYDRAULICS: Two auxiliary circuits (50 L/min combined) deliver proportional flow up to 45 L/min for hydraulic breakers, augers, or flail mowers. A third spool (bi-directional) supports thumb or tilt rotator.
- ISO/SAE CONTROLS WITH TOGGLE SELECTOR: Pilot-operated joysticks with push-button pattern changer (ISO backhoe or SAE excavator) reduce training time. Armrest-integrated throttle dial and auto-idle system drop engine to 1,400 rpm after 4 seconds of inactivity.
- ANTI-VIBRATION CABIN (ROPS/FOPS): Pressurized polycarbonate door with wiper, optional heater/defroster. Seat is grammeter-suspended with retractable 50mm seatbelt. Noise level at operator ear: 84 dB(A).
- SMART CONTROL PANEL: 4.3-inch LCD display showing fuel level, coolant temp, hydraulic oil temp, service hour meter, and fault code retrieval (SAE J1939 CANbus). Includes immobilizer key and theft-protection PIN.

## COMPLIANCE & SAFETY STANDARDS

All units carry CE (2006/42/EC), UKCA, and ANSI/SAE standards. Engine meets EPA Tier 4 Final, EU Stage V, and Japan MLIT low-emission regulations. Structural integrity certified to ISO 12117-2 (ROPS/FOPS) and ISO 10265 (falling object guard). Safety features include travel alarm (97 dB(A)), boom holding valve (load-holding check), and emergency engine stop (pull cord + electric switch). All hydraulic hoses conform to EN 857 2SC and are positioned within counterweight contours to reduce snagging. A standard fire extinguisher bracket (1 kg) is supplied.

## TECHNICAL SPECIFICATIONS

The following parameters are measured at sea level under SAE J1177 conditions. Performance may vary by attachment type and site altitude.

Parameter	Specification
Engine Model	Kubota D902 (or equivalent 3-cyl

diesel)	
Net Power (SAE J1995)	9.6 kW (12.9 HP) @ 2,500 rpm
Operating Weight (with cab + bucket)	780 kg (1,720 lb)
Bucket Capacity (ISO 7451)	0.022 m <sup>3</sup> (0.75 ft <sup>3</sup> ) / 24 cm width
Max Digging Depth	1,580 mm (62.2 in)
Max Dump Height	2,250 mm (88.6 in)
Max Reach at Ground Level	2,850 mm (112.2 in)
Swing Speed (360°)	8.5 rpm
Track Width (retracted / expanded)	600 mm (23.6 in) / 800 mm (31.5 in)
Ground Clearance	132 mm (5.2 in)
Hydraulic Pump Flow (total)	

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border: 1px solid #ddd;'>18.2 L/min (4.8 GPM)</td></tr><tr><td
style='padding: 8px; border: 1px solid #ddd;'>Relief Valve Pressure
(implement)</td><td style='padding: 8px; border: 1px solid #ddd;'>210 bar
(3,046 psi)</td></tr><tr><td style='padding: 8px; border: 1px solid
#ddd;'>Fuel Tank Capacity</td><td style='padding: 8px; border: 1px solid
#ddd;'>9.5 L (2.5 US gal)</td></tr></table>
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