



UNITED STATES DEPARTMENT OF DEFENSE

HUMANITARIAN DEMINING R&D PROGRAM

Badger

An armored medium-class excavator capable of clearing vegetation, sifting, and excavating mine-laden soil using reach-in capability

Badger is a 13-ton medium class excavator that can cut vegetation, dig and remove mines and UXO from contaminated soil, and prepare suspect areas for demining operations using a suite of specialized and commercial excavator tools.

Badger's reach-in capability allows the machine to travel in cleared areas and operate tools inside suspect areas while protecting the operator inside the armored cab. The Badger's tools run off on-board power without the addition of a heavy auxiliary power unit. A priority flow valve allows the operator to adjust the amount of hydraulic flow to the tools, thus optimizing the performance of each tool.

STATUS

Two Badgers are undergoing operational field evaluation (OFE) in Cambodia with the Mines Advisory Group (MAG). To date, MAG has cleared 1,650 mines and unexploded ordnance from over 1,419,000 square meters of land.

In February 2019 Badger completed an OFE on Guadalcanal with the Golden West Humanitarian Foundation. The Badger helped Golden West clear over 6,100 abandoned and unexploded World War II ordnance items from 1,400,000 million square meters of land.



Above: Badger with soil sifting attachment in Cambodia

Left: Badger cuts vegetation on Guadalcanal, Solomon Islands

Cutting-Edge Solutions
DEMINING TECH
MINE CLEARANCE & AREA PREP

FEATURES

- Armored cab
- Excellent maneuverability and ability to cut around larger trees
- Priority flow valve allows for adjustment of hydraulic flow to optimize tool performance without degrading performance of other excavator functions
- Badger was designed with consideration of size, weight, fuel efficiency and maximum power output

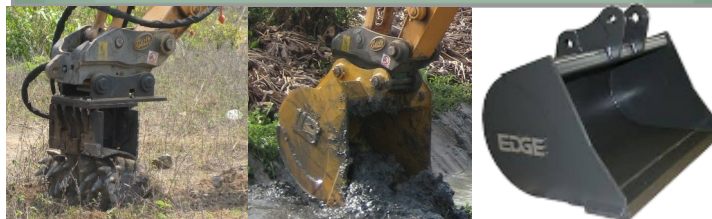
VEGETATION CUTTING



SIFTING



EXCAVATING/GRINDING



TRANSPORTATION



GRAPPLE



APPLICATIONS

- Vegetation removal, area preparation and soil sifting using the reach-in excavator arm
- Armored cab to safely work in AP mine or UXO contaminated soil

SPECIFICATIONS

Operating Weight	13,600 kg (29,920 lb)
Transport length, width, height	25'x8'6"x9' (7.62x2.59x2.74 m)
Engine Type	4 cylinder turbocharged diesel
Net Engine Power	106 hp (79 kW) @ 2200 rpm
Torque, peak	325 ft-lb (449 Nm) @ 1450 rpm
Combined Hydraulic Pump Output	66 gpm (250 lpm)
Hydraulic System Relief Pressure	4,975 psi (34.3 MPa)
Max Travel Speed	3.5 mph (5.6 kpm)
Ground Clearance	1'5" (0.43 m)
Overall Reach Height	31' (9.45 m)
Max Dig Radius	28'8" (8.74 m)
Dig Depth	19'5" (5.91m)
Average Fuel Consumption	2.5 gallons/hour (9.5 liters/hour)

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