UNITED STATES DEPARTMENT OF DEFENSE

HUMANITARIAN DEMINING R&D PROGRAM

RAPTOR

An all-in-one area preparation and mine clearance system

The Rapid Area Preparation Tool (RAPTOR) describes two armored, commercial farm tractors with a suite of attachments to be used in a "system of systems" toolbox for demining. The Fendt tractors have unique reversible operator stations that provides full control when operating in reverse is required. Commercial and specialized attachments can cut vegetation, loosen soil, move soil and obstacles, reduce metallic clutter, and engage the soil to expose or destroy landmines. The attachments include Rotary Mine Combs for clearance of buried anti-tank mines, power harrows/magnets designed to remove metallic clutter, an area reduction roller, heavy vegetation cutters, plows, harrows and buckets. Setco Solid Rubber Tires combine AP mine blast survivability with dual rubber compounds for better traction and operator ride comfort.



Above: RAPTOR 1's first AT mine. Right: Raptor with the rotary mine comb attachment near Jebrail, Herat, Afghanistan.





Left: RAPTOR II with its rotary mine comb attachment conducting antitank mine clearing operations with The HALO Trust in Afghanistan.

STATUS

Raptor began an operational field evaluation in Afghanistan with the HALO Trust in March 2011. A second system arrived in 2014. Primarily using the Rotary Mine Comb attachment, the Raptor systems have cleared more than 11,637,000 square meters of anti-tank mine suspect land while finding 290 AT mines and items of unexploded ordnance.



FEATURES

- Versatile platform with a suite of area preparation implements for toolbox approach
- Rotary Mine Comb attachment engages the ground to mechanically clear AT mines
- Setco Solid Rubber Tires for mine survivability with increased traction and softer feel
- Unique power harrow/ magnet to reduce metallic clutter up to a depth of 15 cm
- Unique area reduction roller with independent sections and overlapping rolls to follow terrain

APPLICATIONS

- All-in-one area preparation for AP mine suspect areas
- AT mine clearance when equipped with Rotary Mine Comb

US Army RDECOM CERDEC NVESD info@nvl.army.mil 10221 Burbeck Road Fort Belvoir, VA 22060-5806 USA www.humanitarian-demining.org

Several of the available attachments:



















SPECIFICATIONS	Fendt 918	Fendt 822
Engine	119kW / 160 HP	153 kW 206 HP (185 HP PTO)
Length x Width x Height	4.9 m x 2.5 m x 3.1 m	5.3 m x 2.6 m x 3.3 m
Hydraulic System Max. Flow	112 l/min / 30 gpm	109 l/min / 28.8 gpm
Lift Capacity	Rear 15,600 lb / Front 8,000 lb	Rear 24,980 lb / Front 10,000 lb