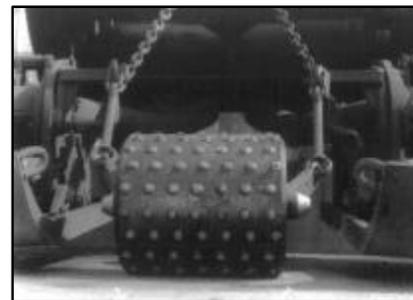


Now Available: An Improved Dogbone Assembly To Defeat Magnetically Fuzed Mines



The trend in mines is toward more sophisticated fuzing. Mines that are initiated by the magnetic disturbance of a passing vehicle are becoming more prevalent and are usually more lethal, with a full vehicle-width attack capability. Most of these mines have a self-forming fragment warhead that will defeat all known belly armor.

There is a new mine countermeasure that is capable of defeating these mines, and it may not be in your motor pool.

It is the Anti-Magnetic Mine Actuating Device (AMMAD), better known as the Improved Dogbone Assembly (IDA). The IDA is designed to detonate magnetically fuzed mines ahead of the host vehicle. Developed and produced by Israeli Aircraft Industries (IAI), the IDA can be installed in place of the existing dogbone, which is designed to pre-detonate tilt rod-actuated mines. Fitting on both the Mine Clearing Blade (MCB) and Mine Clearing Roller (MCR), the IDA is an Additional Authorized List (AAL) item that becomes a specific component of the MCB or MCR once installed.

The IDA should be used in actual mine clearing operations; the existing dogbone and chain should be utilized in training due to associated costs.

BACKGROUND. The IDA, when installed, rolls on the ground and projects a magnetic field forward of the vehicle and the MCB or MCR. This magnetic field duplicates the magnetic signature of the vehicle, thus it detonates both magnetically fuzed mines as well as any tilt rod-actuated mines encountered. In 1990, the U.S. Marine Corps and the Army purchased approximately 1,000 of these systems for use in Desert Storm. The Project Manager for Mines, Countermine and Demolitions tested the IDA and proved that the device consistently detonates magnetically fuzed mines well forward of the combat vehicle, thereby drastically reducing the chances of the vehicle being damaged by the mine detonation. BOIP, at present, consists of three MCBs per tank company, twelve MCBs per battalion, nine MCBs per ACR squadron, four MCRs per battalion and twelve MCR mounting kits per battalion.

INSTALLATION. Installation of the IDA to the MCR is quick and easy, requiring 30 minutes or less. No special tools are needed. While the installation on the MCB requires a little more effort to install, it still should be no more than 60 minutes, and here again, no special tools required.

INFORMATION TO ORDER. The IDA is an Additional Authorized Item (AAL). The NSN for the MCB IDA is 3815-01-369-7497 and costs \$6,261. For the MCR, use NSN 2590-01-380-4852, cost \$7,002. Both can be requisitioned the

same as a repair part. Delivery time is approximately 2-3 weeks in CONUS and 4-5 weeks OCONUS.

FUTURE IMPROVEMENTS. The Program Manager for Mines, Countermine and Demolitions is monitoring IAI's new On Board (OB) AMMAD as well as other similar devices. The new OB AMMAD weighs less than 300 pounds, uses approximately 20 Amps at 24 volts, is protected



against small arms fire and artillery and mine fragments, and does not impede vehicle mobility. This device is an add-on kit that can be integrated onto a variety of wheeled and tracked armored vehicles. It consists of two magnetic field emitters mounted on the front of the vehicle, a control panel in the crew compartment, and electrical harnesses connecting the power supply to the emitters and control box. This system has the potential to be configured for not only forward projection of the magnetic signature, but for side projection as well. The magnetic signature projected can be changed, if necessary, to defeat potential future changes in magnetically fuzed mines. This new device has undergone limited technical testing by the U.S. Marine Corps with positive results. Estimated cost is \$10,000 in production.

CONTACTS.

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