

Hellfire Propulsion System



A multimode missile effective in anti-tank, anti-bunker, and anti-ship roles

Overview

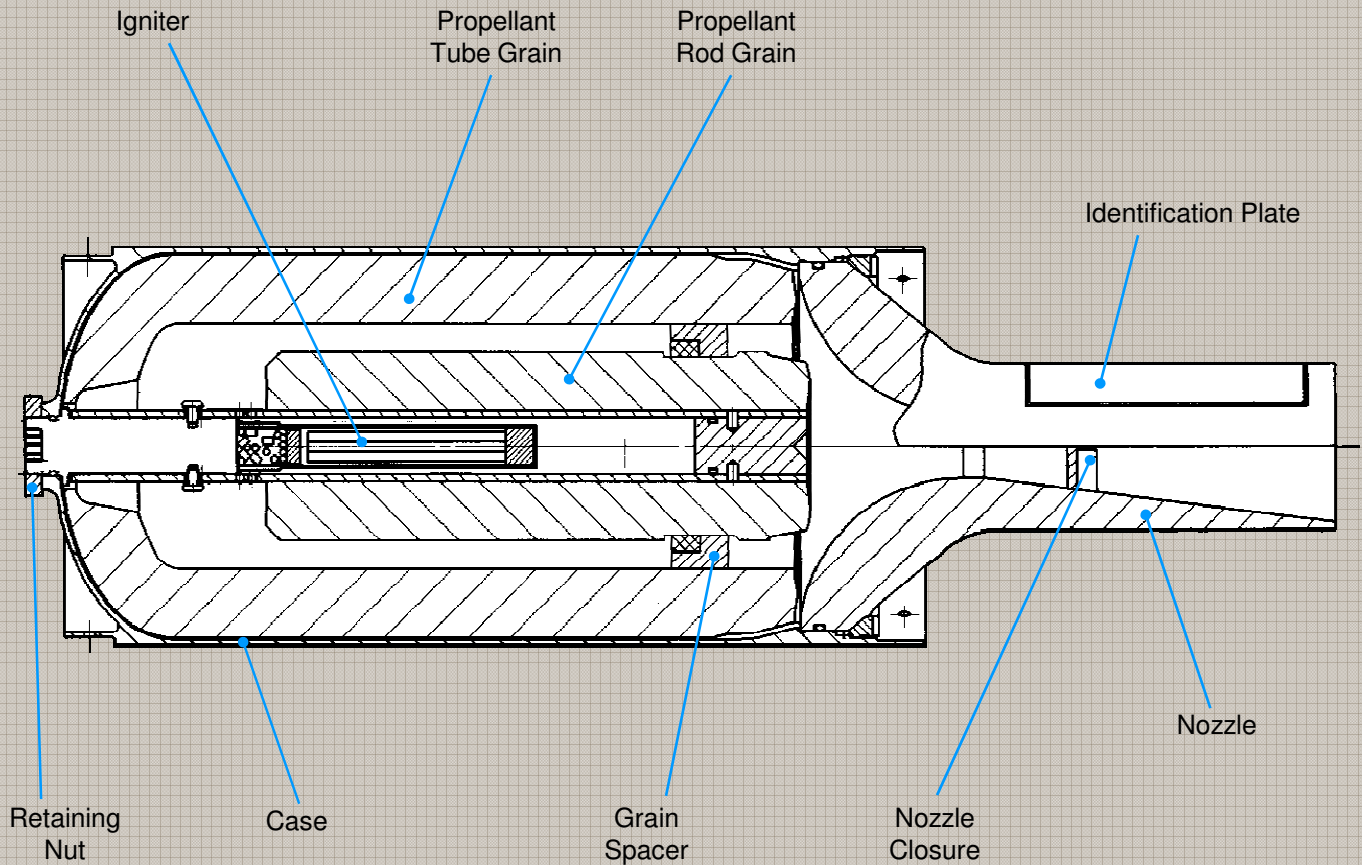
The Hellfire missile was developed by Rockwell International and Martin Marietta for the U.S. Army Missile Command (MICOM). It has a multi-mode capability and is effective against tanks, bunkers, and ships. As an air-to-air/air-to-surface missile, Hellfire can be launched from the AH-64 Apache, AH-1W Super Cobra, UH-60, OH-58, OV-10 Bronco, A-10, F/A-18 Hornet, AV-8B Harrier, and similar platforms. As a surface-to-air missile it can be launched from ground based tripod units and trucks such as the High Mobility Multipurpose Wheeled Vehicle (HMMWV), otherwise known as the Hummer.

Application

The Hellfire AGM-114A is the U.S. Army's chief helicopter launched anti-tank and anti-bunker missile. The AGM-114B is used by the U.S. Navy as an anti-ship missile. The Army's Longbow missile, which is deployed on the AH-64D Apache, uses the M120E4 motor for propulsion.

Development

ATK Missile Subsystems and Components conducted a company funded development/qualification program for the Hellfire rocket motor. The ATK Hellfire motor was qualified in the mid-1980s and production began in 1990 with Buy 7 and is currently in production with over 36,000 units delivered.



FEATURES

- Qualified minimum smoke propellant
- Rod and tube grain design
- Neoprene bondline system

PERFORMANCE

- Temperature Limits:
 - Operating: -45°F to +145°F
 - Storage: -45°F to +160°F
- Service life: 20+ years (estimated)

TECHNICAL DATA

- Weight: 31.3 lbs
- Length: 23.35 in.
- Diameter: 7.0 in.
- Case: 7075-T73 aluminum
- Insulator: R-181 aramid fiber-filled EPDM
- Nozzle: Cellulose phenolic
- Propellant: minimum smoke cross linked double base (XLDB)

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