press release

RHEINMETALL DEFENCE

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Rheinmetall: new tank ammunition and medium-calibre technology for modern missions

The main battle tank combines protection, mobility and firepower. The infantry fighting vehicle does this too, coupled with the ability to carry additional personnel. These two tactical vehicles complement each other perfectly. Moreover, they continue to play a vital role in fast-paced conventional military operations as well as in force projection deployments, furnishing fire support to dismounted forces, etc.

DM11 and HESQ

In order to further enhance the operational effectiveness of main battle tanks in modern military operations, Rheinmetall has developed a new tank round for the German Ministry of Defence. Known as the DM11 in Bundeswehr parlance, the new 120mm HE ammunition can be fired from any existing 120mm smoothbore gun (L44 and L55). It is intended first and foremost to widen the operational spectrum of main battle tanks, making them more than a match for current threat situations.

From the technical standpoint, two factors make the 120mm x 570 HE Temp. DM11 round a standout: it is programmable when loaded and possesses an airburst capability.

The HE DM11 is designed for engaging non-armoured and lightly armoured targets such as vehicles; antitank elements in the open and in covered positions; and field fortifications. Furthermore – thanks to its high precision and long range – it can be employed to penetrate covered positions and engage targets behind walls, as well as for creating breaches and passageways in built-up areas for friendly forces operating in dismounted mode.

In order to fully exploit the ammunition's operational potential, it features three different fuse modes:

- Impact fuse mode/point detonation (PD); here the warhead detonates inside the target medium in order to produce larger breaches;
- Programmable delay/point detonation with delay, PDwD); here the warhead detonates after penetrating a wall, etc.;
- Programmable airburst mode (AB mode); here, at a range of up to 5,000 metres, the warhead detonates either in front of or above the designated target.

The interfaces between the propulsion unit and the warhead, and the propulsion unit and the fuse, ensure that shelf life-related replacement of the propulsion unit or switching to a different fuse in future can be carried out economically. Another feature that sets the round apart: it is safe to fire in all climate zones (-46°C to +71°C). Calling it the “Multi Purpose (MP) DM11”, the United States Marine Corps already uses the DM11, primarily for engaging non-armoured and lightly armoured targets in asymmetric conflicts.

A brand-new type of ammunition, the RH31 High Explosive Super Quick (HESQ), will be available starting in autumn 2012. This 120mm round is designed for creating breaches and producing shrapnel fragments, making it highly effective against lightly armoured targets. Lower priced than the DM11, the new round features a non-programmable impact fuse (impact fuse mode/delay fuse mode), meaning that it can be fired from any standard 120mm smoothbore tank gun without the need for system modification.

During a recent NATO live-fire comparison, the HESQ bested its two rivals. Owing to its experience during ISAF operations in Afghanistan, the Danish Army plans to procure this new type of ammunition. It is to be deployed immediately.

The MK30-2 ABM automatic cannon

The Rheinmetall MK30-2/ABM automatic cannon is an open-bolt gas-operated weapon with selectable ammunition feeding. It fires programmable airburst rounds as well as conventional 30 x 173mm-cal. ammunition. This automatic cannon is based on the internationally acclaimed Mauser MK30-2, which serves as standard armament for infantry fighting vehicles in Austria, Portugal and Spain.

Apart from Rheinmetall’s tried-and-tested “Ahead” ABM technology, the MK30-2/ABM is characterized by ease of use and high reliability. As it leaves the muzzle, the projectile is programmed to eject its sub-ammunition at the optimum point in time, making it extremely effective against numerous modern battlefield threats.

Thanks to its rate of fire of 200 rounds per minute and maximum effective range of 3,000 metres, it reliably takes out targets on land, at sea and in the air. The German Bundeswehr is procuring this automatic cannon for its new Puma infantry fighting vehicle.

With conventional ammunition, the MK 30-2 attains a rate of fire of 600-700 rounds per minute. Mounted on a tracked or wheeled vehicle, the weapon is thus suitable for use in an air defence role. Rheinmetall continues to manufacture its automatic cannon at the former Mauser works in Oberndorf, a cradle of the German arms industry.

Rheinmetall – Partner for combat performance upgrades and enhanced operational effectiveness

Its longstanding experience in armoured vehicle engineering, in producing advanced weapons and ammunition, and in system integration, combine to make Rheinmetall the ideal partner for enhancing the combat potential and operational effectiveness of legacy systems, readying them for current and projected missions with rapidly available, durable solutions.

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