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ARTEC

ARTEC GMBH

Krauss-Maffei-Strasse 11 · 80997 Munich · Germany
Tel. +49 89 892130-0 · Fax +49 89 892130-17
mail: info@artec-muc.de · www.artec-boxer.com

ARTEC GmbH is a joint venture of
Krauss-Maffei Wegmann and Rheinmetall Landsysteme.



The Boxer

Protection | Payload | Performance | Modularity



Troops in theatre deserve the best

Perfect solution for a successful mission

The diverse spectrum of challenges within the concept of the Three-Block-War of high-intensity combat actions, peace keeping and humanitarian relief operations within complex threat environments requires a new military vehicle concept. BOXER with its unique modularity is the vehicle that is flexible enough to fulfil this wide spectrum of diverse mission requirements with guaranteed survivability, reliability and future growth potential.

The BOXER is a true mother ship providing multiple functions for its users and communication interfaces for participation in network enabled warfare. The flexibility of its modularity allows BOXER to be easily adapted to meet diverse mission requirements, in rapidly changing circumstances and global environments.

BOXER has sufficient integral growth potential so that future emerging military roles, or changing requirements can be met without degrading the vehicles capabilities such as mobility.

Key features of BOXER are

- **Protection** – Survivability without compromise
- **Payload** – Integral growth potential
- **Performance** – Excellent mobility under extreme conditions
- **Modularity** – The mission changes, so does BOXER

The concept and design of the BOXER has been proven and qualified by extensive reliability and durability trials (180,000 km) with 12 prototypes in 9 different variants. An integrated Logistics Support concept has been developed and qualified in parallel to the vehicle qualification.

In December 2006 the Dutch and German Armies ordered a first batch of 472 BOXER vehicles in 9 variants.



Protection

Survivability without compromise

The modular design of a multi-layer floor concept and safety cell provides a unique overmatch behaviour that minimises the “catastrophic kill” risk from mine and IED attacks. The underlying protection philosophy of the BOXER provides a multi-hit capability and sufficient residual mobility after attacks. In order to prevent an impact, the BOXER follows a new generation of stealth design, low acoustic, infrared and radar signatures.



Payload

Ready for the future

The payload capacity of BOXER allows for additional growth potential even after the integration of today’s mission equipment and weapon station without compromising the vehicle’s mobility and protection. The growth potential enables for system upgrades to cope with the changing requirements during the lifetime of the vehicle or additional armour to meet future military roles without degrading the mobility performance.



- **Proven protection against ballistic threats**
 - Highest protection level in its class in terms of heavy machine guns, automatic medium calibre machine cannons, bomblets and artillery fragments
 - Crew compartment completely covered by spall liner
 - Optional reactive and active protection systems against e.g. RPG7
- **Integrated state-of-the-art protection against mine/IED**
 - Resistant against all kinds of AP and AT mines under wheel and belly
 - Protected against IEDs with heavy blast at short distance
 - Optional protection kits against IEDs and mines with EFP and heavy fragments, e.g. TRMP6/7
- **Modular mounting of versatile protection systems**
 - passive armour (incl. ceramics), reactive armour and active systems – enabling easy adaptation to different threat scenarios and integration of future technologies

Performance

Excellent mobility under all conditions

To be able to follow a MBT (Leopard 2) cross-country mobility requirements have been qualified at the current vehicle’s maximum combat weight and under the most extreme environmental conditions. Rapid Strategic Mobility in a combat-ready configuration is ensured by the capability of being deployed by road, train, sea or air (A400M). By splitting the Drive and the Mission Module even more flexibility is being provided.



- **“Best of two“** – mobility performance of tracked vehicles off-road, and of wheeled vehicles on-road
 - All independent wheel suspension
 - All steering mechanisms above the wheels in protected positions
 - Permanent 8x8 drive with 4 axle differentials and 2 inter-axle differentials
 - Central tyre inflation system
 - Combat wheels with integrated run-flat system
 - 27" tyres
- **High performance power-pack** – powerful V8 530 kW multi-fuel engine providing best agility in heavy terrain and the power for growth potential

Modularity

The mission changes – so does BOXER

The unique concept of interchangeable mission modules onto common drive modules forms an ideal baseline for introducing diverse national requirements or modifications to mission modules. Nine variants for two nations have already been developed and qualified.



- **Modular principle** – efficient introduction of diverse requirements
 - Exchange of mission modules in theatre within 30 minutes (“click + drive”)
 - Pooling concept for vehicle mission versions provides flexibility in procurement and deployment
 - Easy removal of mission module provides additional transportability flexibility and enhances maintainability
- **Easy to maintain** – exchange of power-pack within 20 minutes („drive in – drive out“)
- **Fit for the future** – flexible and cost effective module change realisation for new customers and upgrades

Result of long-lasting experience

Proven concept in series production

Extensive reliability (over 90,000 km) and durability (over 90,000 km) trials driven with 12 prototypes during the development phase in order to achieve the required maturity and reliability at system- and sub-system level. These trials result in:

- High quality and proven series vehicles
- Maximizing the operational availability of the BOXER series production vehicles
- Reducing life-cycle costs
- Extensive use of proven COTS/MOTS items increases reliability and reduces life cycle costs

BOXER is currently in series production for the German and the Dutch Armies. A first batch of 472 vehicles in 9 different variants and an integrated Logistics Support Package are under contract. Official feasibility studies for further variants have been conducted.

Multiple assembly lines at Krauss-Maffei Wegmann and Rheinmetall Land Systems in Germany and The Netherlands provide flexibility and sufficient production capacity.

Best of class suppliers such as MTU, ZF, Behr and Renk contribute to the design, performance and reliability of the BOXER.

