

TECHNOLOGY FOR COMBAT ENGINEERS



THE MISSION

In the 21st century, army engineers need a robust, reliable and future-proof armoured engineer vehicle with state-of-the-art equipment, high levels of protection and mobility in the entire field of application. As a system vendor, Rheinmetall Landsysteme has responded to these requirements by developing the AEV3 KODIAK, the third-generation of armoured engineer vehicle.



In addition, there is a high level of ballistic protection, integrated mine protection, ABC protective ventilation and a crew room with a heating and cooling system. Additional equipment, such as combat control systems as well as radio and intercom devices and other accessories are integrated according to customer specifications.

The two- or three-person crew of the AEV3 KODIAK can use the system under full protection. This also applies to the replacement of excavator tools. In addition, the AEV3 KODIAK can be operated and used remotely from a safe distance. The vehicle is the perfect tool for army engineers tasked with erecting or breaking obstacles on the battlefield, including breaking minefields. The AEV3 KODIAK is also particularly suitable for disaster relief in domestically and abroad. In addition, the vehicle is able to provide electrical and hydraulic energy for external tools, e.g. for additional work lights or hydraulically powered hand tools.

REFERENCES

Customers within and outside Europe use the AEV3 KODIAK as a perfect tool for their combat engineers and utilise it to their complete satisfaction.



THE SYSTEM CONCEPT

The AEV3 KODIAK combines modern engineering technology with the tried-and-tested components from the LEOPARD2 battle tank. The AEV3 KODIAK has an articulated arm excavator in the middle of the vehicle, including further excavator tools, an adjustable bulldozer blade and a flexible winch system. The total weight remains the same despite the extensive equipment in the MLC70 class. Using the mine breakthrough kit, the crew can quickly convert the KODIAK into a mine breakthrough system with a mine clearance plough, signature duplicator and marking equipment.



EXCAVATORS AND EXCAVATOR TOOLS

The system has a hydraulically operated quick coupling with hydraulic connections for various excavator tools such as universal grabs, hydraulic hammers and concrete shears. The vehicle can transport up to two additional excavator tools on the rear carrier.

The excavator tools can be replaced without leaving the protected crew compartment. The articulated arm excavator in the centre of the front of the vehicle even allows use in narrow places or in the mountains and guarantees unrestricted use of the excavator arm on both sides.



WINCH SYSTEM

The double winch system was specially designed to meet the requirements of the army engineers. With the system it is possible to quickly tear down barriers and obstacles. Both winches can be used together or independently of each other, have a freewheel device and can be used together to recover heavy vehicles.



MBT-LEOPARD-2-CHASSIS

The AEV3 KODIAK is an armoured engineer vehicle that is based on the chassis of the LEOPARD2 tank. With its first-class off-road capability, it can follow today's highly mobile manoeuvring units, e. g. the MBT LEOPARD2, without restriction. The safety of the crew is guaranteed thanks to its high level of protection against projectiles and mines; additional bomb protection can further improve its survivability. By using the MLC80 chassis components, there is potential for improvement regarding an increased level of protection.





WEAPON STATION

Manually or remotely operated weapon stations can be used. In addition, the AEV3 KODIAK can be equipped with the latest design of smoke projectile launcher. This can also be used as a grenade launcher.

The AEV3 KODIAK is tried and tested and successfully used by our customers in Europe and Asia.

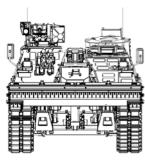
VISUAL CONCEPT

The engineering equipment includes an angled mirror and a camera system that allows the crew to perform all tasks under protection, except for attaching the winch ropes. The camera system includes up to six video cameras. With their help, the crew can perform tasks such as excavating earth, replacing tools, levelling and clearing mines to break and erect barriers without having to leave the safety of the crew compartment. The crew members can view the camera images independently of each other on their respective screens. It is also possible to display camera images on monitors integrated in the periscopes or to operate the entire system remotely, e.g. in very dangerous operations.

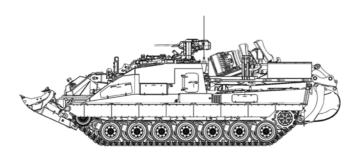
TECHNICAL DATA* – AEV 3 KODIAK BASE/ENGINEER VERSION	
Dimensions	
Length	10,200 mm
Height without MG	2,600 mm
Transport width	3,540 mm
Weight	
Combat weight	MLC70
Drive	
Motor	MTU-MB 873
Power	1,100 kW
Protection	
Ballistic protection	
Mine protection	
Performance data	
Maximum speed	68 km/h
Gradient	60%
Side slope	30%
Front ramp angle	26°
Climbing capability	>1.00 m
Ditch crossing capability	3.00 m
Fording capability	2.25 m

^{*}Subject to changes









EXCAVATOR SYSTEM

- Shovel volume 1 m³
- Horizontal operating range up to 9 m
- Vertical operating range up to 8.2 m
- Lifting capacity up to 3.5 t at max. range
- Hydraulic quick coupling
- Hydraulic support for various excavator systems

WINCH SYSTEM

- Two 9 t Rotzler winches (spill version with freewheel)
- Dynamic tractive force, single traction
 - 90 kN up to 6 m/min
 - 2.5 kN at 90 m/min
- Variable speed from 0 m/min to 90 m/min
- Constant tractive force
- Usable cable lengths 200 m
- Double quadruple hoist with up to 620 kN

LEVELLING SYSTEM

- Width 3.42 m or 4.02 m with side extensions
- Two rippers (0.3 m)
- Variable cutting angle, from 24° to 79°
- Variable tilt angle +/-5°
- Vertical bulldozer blade extension

MINE CLEARANCE SYSTEM

- Pearson mine plough in full width
- Lane marking system
- Clearing width ≥4.2 m
- Adjustable clearing depth 0-300 mm
- Option: electromagnetic duplicator



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