Mobility

Unique propulsion concept

The AIFV PUMA features a propulsion concept which achieves maximum tactical mobility, comparable to a Leopard 2 main battle tank, while at the same time reducing noise and vibration levels for a significant reduction in crew stress. This is realised through the combination of various innovative solutions:

- A powerful compact power pack guarantees maximum performance with minimum structural volume and weight.
- A 6-roadwheel decoupled running gear significantly reduces noise levels and vibrations.
- The use of hydro pneumatic elements with hydraulic bump stops at each roadwheel station guarantees maximum mobility with minimum installation volume and weight.
- Temperature compensation guarantees constant track tension and ground clearance under all conditions.

Power pack

- Powerful 10-cylinder diesel/multifuel engine delivering 800 kW at 3800 rpm
- Newly developed power shift, reversing and steering transmission (HSWL)
- Flywheel generator, up to 170 kW
- Integrated front-mounted cooling system
- Quick change possible

Decoupled running gear

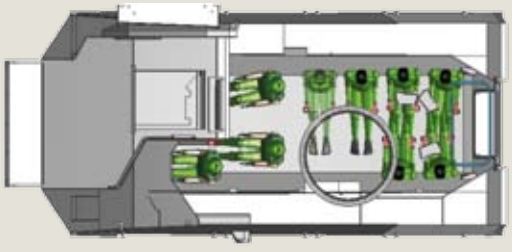
- A Running gear carriers, left and right, to mount the suspension components
- Isolation by elastic damping elements between running gear carriers and hull
- Fuel tanks integrated in running gear carriers
- Hydro pneumatic suspension
- Hydraulic bump stops at all roadwheel stations
- Temperature compensation to control track tension
- Weight-optimized 500 mm wide steel track
- 450 mm ground clearance in all weight categories

Strategic Mobility

- The AIFV PUMA is designed for air transport (e.g. Airbus A400M) by removing armour modules and specific equipment parts so that the special air transport configuration A (31.45 t) will be achieved. Easy mountable armour elements allow upgrading PUMA to the significantly increased protection level C (Combat) after landing.
- The PUMA is further deployable by road, rail and ship

Mounted and dismounted combat – the mobile infantry squad

- The chassis incorporates a key PUMA concept approach, the compact, full-length crew compartment for the entire crew, i.e. driver, gunner and commander as well as the infantry squad consisting of six soldiers.
- The PUMA is equipped with a two-man roof hatch at the rear enabling the infantry squad to fight while mounted.
- The infantry squad is involved in the reconnaissance and identification of targets by using the optic periscopes, cameras and vision through glass block in the rear ramp. The entire control and display concept uses the most advanced technologies – which allows for maximum situational awareness of the dismounted infantry squad. The PUMA is designed for rapid changes between mounted and dismounted close combat based on the tactical concept of the German Bundeswehr.



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