EIRMINAL CO.



BTR-60MK

Modernization of the Armored Vehicle according the needs of the Armed Forces



Why the BTR-60MK?

The Ministry of Defense of Ukraine keeps a significant number of armored vehicles BTR-60, which bodies and chassis are in a satisfactory technical condition. However, outdated GAZ engines, braking system, etc. do not allow them to be used in troops.

The equipment of these BTRs like communication, navigation, life support, etc., also does not meet modern requirements and needs of the army.

The cost of retrofit to the current requirements of BTR-60 is 4-6 times less than the cost of any new modern floating armored vehicle in Ukraine.

In certain parameters (for example, armor protection) modernized BTR-60MK even exceeds the BTR-80 and BTR-70, which are the most massive in the Armed Forces of Ukraine.

BTR-60MK can be used in troops as a command staff vehicle, as well as a base chassis for specialized vehicles of different purposes, which will enable the use of BTR4 exclusively as combat vehicles.

Parameter	Standard
Vehicle type	eight-wheeled, floating
Suspension	8 x 8
Total weight	11,9
Crew, ind.	3 (commander, operator, driver)
Landing personnel, ind.	7
Overall dimensions, mm:	
length	7238±25
width	2814±11
height with full load:	
on the body	2055
Road clearance, mm	470
Maximum speed, not less than, kmh:	
on the road	80
floating	8-10
Specific power, kW per ton (hp per ton)	14,46 (19,66)
Operational range off-road, km	
on the main tanks	850
with extra tanks	1030
Operational range on a dirt road, km	
on the main tanks	480
with extra tanks	580
Fuel consumption per 100 km,	
on the highway	not more 34
off-road	not more 110
Obstacles to overcome on a dry, grassy soil:	
maximum lifting angle, deg.	30
maximum lilt angle, deg.	25
trench width (ditch), m	2
Key features of the water barrier to be overcome:	
angle of the car entrance to the water, deg.	up to 25
angle of the car exit from the water, deg.	up to 15
width of water obstacle	without limitation (by reserves
maximum wave, points (wave height, m):	up to 1 (0,75)

Body and armor protection

Parameters and capabilities of the body, design of sections correspond to the basic model.

The following changes have been made:

- extension of hatchways for landing personnel for convenient use;
- Installation of additional spacious armor protection of work sections, which provides protection against damage by bullets 7.62x54 B-32 from a distance of 10 m (corresponds to the level of STANAG III)
- installation of modern seats for landing personnel
- ensuring the possibility of installing the additional shot proof protection from inside of the working sections, which increases the survivability of the crew and landing personnel;
- design of the model provides the possibility to install the additional anti-RPG cages.
- improved access to the engine compartment, which facilitates the maintenance of the vehicle
- the engine compartment is closed with an armored hatch equipped with electric drives
- separate compartment for battery 12CT-85 is with a retractable frame



Power unit

Two power Cummins engines are used for the power unit for BTR.

The manufacturer's guarantees the supply of the engines in the required quantity for the end user – the Armed Forces of Ukraine.

The total engine power is 234 hp, which provides an increase in power/weight by 38%.

The use of heavy fuel increases the level of fire safety.

The fuel supply system includes two fuel tanks.

In order to ensure the reliable start of engines in cold temperature a modern heater is installed in the engine cooling system



Transmission

Transmission elements (transmission gear boxes, transfer cases, bridges, etc.) are used from the basic model of BTR-60 with the installation of modern clutches with synchronized drives and spring amplifier, which alleviates the driver's operation.

- BTR's transmission provides a minimum speed of 4-5 kmh, as well as a maximum backward speed of 15 kmh.
- the transmission provides the ability to start the engine from a tow car and tow of the same type of models



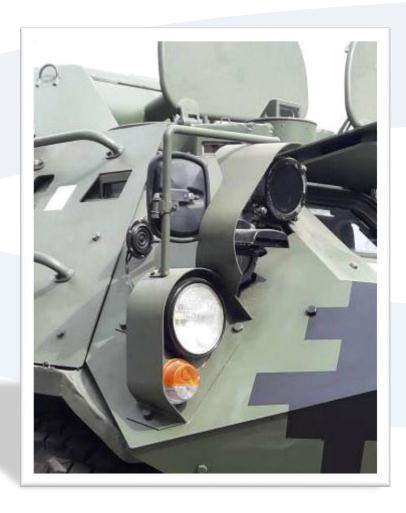
Chassis and control systems

- The chassis is used from the base model of BTR-60.
- Wheels are equipped with pneumatic tubeless tires 12.00-R20 of variable pressure used in the Armed Forces of Ukraine



Additional systems

In order to ensure the possibility of moving on public roads, the modern system of lighting and light signaling is installed. Additionally, headlights of high strength (tank's) with a light-masking mode and a separate rotary headlight are installed



Additional systems

Taking into account the modern requirements and, accordingly, the increasing number of consumers of electricity, two generators with a total capacity of 8.3 kW are installed, which allows to provide the electricity demand in all modes of use and allows the installation of additional electrical equipment.

- The vehicle has a modern automatic fire system.
- To protect against weapon of mass destruction, a air purifier system is installed to ensure the safety of the crew and the landing in case of action on the contaminated terrain.
- To facilitate the driver's operation, reliability improvement and durability of the braking system, a dual brake system is installed.



Means of communication, navigation, control and command

Radio stations and equipment adopted in the Armed Forces of Ukraine are used as means of communication.

- GPS and GLONASS navigational equipment is unified with the adopted navigation equipment supplied to the Armed Forces.
- Radio communication system unified with the Armed Forces.





