



# 105 mm, M09

## Armored truck-mounted howitzer



M09 105 mm self-propelled truck-mounted howitzer is a modern fire support weapon, particularly intended for modern joint combat units and rapid deployment forces, highly integrated at brigade, regiment and battalion level, intended for rapid response to challenges of modern digital battlefield, characterized by wide range of tactical scenarios of low and high intensity conflicts, including large anti-terrorist and anti-guerrilla operations.

### ARMAMENT AND PROTECTION

For the purpose of mounting the main armament certain modifications had to be carried out on the vehicle, including the following:

- The vehicle cabin was replaced with an armored variant providing protection against small arms cal. 7.62 mm, and fragmentation effect of artillery projectiles. The armored cabin is equipped with the same instruments as the original one. The driver and the commander are accommodated in the driver's cabin. The gun display as well as the control panel for launching of smoke boxes and intercom components or internal communication

with other crew members is located in front of the commander.

- The smoke box launcher (2+2) is integrated in the cabin.
- The middle armored section is installed behind the cabin. One part of the middle armored section contains fuel tanks for the vehicle and oil tanks for the armament. The other part of the middle armored section is used for accommodation of the crew. The area for storage of projectiles and propellant charges is located behind it. The projectiles and propellant charges are kept in appropriate chambers inside ammunition containers. The ammunition containers are designed to provide easy access to projectiles and propellant charges.
- The barrel holder in traveling position is provided on the ammunition container
- An additional frame equipped with a winch is fitted at rear part of the vehicle. The vehicle chassis is integrated on the cross-country vehicle 6x6 of Serbian origin or on some other cross-country vehicle with appropriate carrying capacity. Two trails or the stabilization of the vehicle during firing are installed in the rear part of the additional frame of the vehicle. In driving, the trails are placed in the upper traveling position.

- The armored cabin of the vehicle and armored middle section are made from armored plates providing ballistic protection to the crew against small arms cal. 7.62 mm using FMJ rounds and against fragmentation effect of artillery projectiles, as well as against the pressure of powder gasses during firing.
- High firepower is achieved by long range, high rate of fire and advanced fire control system.
- High rate of fire is enabled by advanced FCS and short transition time from traveling to firing position.
- High fire intensity and time critical target engagement capability is due to integration of modern FCS and high rate of fire.
- High combat autonomy enabled by large combat set.
- High tactical, operational and strategic mobility due to compact and highly mobile cross-country truck chassis.
- Air transport possibility due to lightweight and compact design.
- High combat survivability due to short transition time from traveling to fire position and vice-versa and armored protection.
- High combat versatility due to possibility for direct and indirect firing, FCS armor protection against small arms fire and fragmentation, as well as use of all standard 105 mm ammunition.
- High stability during firing in all directions and elevations due to advanced resting system consisting of four manually operated trails.
- Possibility for integration with modern digital battlefield due to integration of advanced FCS.

## MAIN GUN DATA:

- |                                                  |                                             |
|--------------------------------------------------|---------------------------------------------|
| • Designation                                    | M09 105 mm                                  |
| • Dimensions (traveling/combat configuration)    |                                             |
| • Length (mm)                                    | 6850                                        |
| • Width (mm)                                     | 2300/4250                                   |
| • Height (mm)                                    | 3150                                        |
| • Weight, fully loaded (kg)                      | 12000                                       |
| • Combat set                                     | 44                                          |
| • Loading system                                 | Manual                                      |
| • Crew                                           | 5                                           |
| • FCS:                                           | AFCCS, option                               |
| • Rate of fire, max. (round/min)                 | 6-8                                         |
| • Max. on road speed (km/h)                      | 90                                          |
| • Vehicle autonomy (km)                          | 450                                         |
| • Ballistic protection of the cabin and armament | 7.62x39 FMJ at STANAG 4569 level backwards  |
| • Firing direction                               | -3 to + 65                                  |
| • Filed of action in azimuth (°)                 |                                             |
| • Filed of action in elevation (degree)          | ± 25                                        |
| • Trail extracting and retracting                | manually operated                           |
| • Aiming                                         | manually                                    |
| • In-action/ out of action time (s)              | 120 - 150                                   |
| • Secondary weapon                               | Machine gun 12.7 mm on an armoured turret   |
| • Barrel length (mm)                             | 3500                                        |
| • Type of muzzle break                           | double baffle                               |
| • Type of breech mechanism                       | Horizontal sliding, wedge-type              |
| • Barrel life                                    | 7500 rounds with the standard round (HE M1) |
| • Maximal pressure (bar)                         | 2630                                        |
| • Maximal projectile velocity (m/s)              | 675 (with new projectile HE-ER BT)          |
| • Ammunition                                     | All types of 105 mm NATO ammunition         |

