CONTENT

PRODUCTION

6 BM OPLOT Main battle tank
7 YATAGAN Main battle tank
8 BULAT Main battle tank
9 BTR-4 Armoured personnel carrier
10 BTR-3E1 Armoured personnel carrier
11 DOZOR-B Armoured personnel carrier
12 ATLET Armoured repair and recovery vehicle
13 BTS-5B Universal multi-purpose tractor
14 BREM-2 Armoured recovery and repair vehicle
15 BTR-3BR Armoured recovery and repair vehicle
16 BREM-4K Repair and recovery vehicle
17 BSEM-4K Casualty evacuation vehicle
18 MRV Medical Evacuation Vehicle
19 BTR-3S Armored medical vehicle
20 BM-3 SHTURM Combat module
21 SHKVAL Remote weapon station
22 BM-7 "PARUS" Combat module
23 BAU-23X2 Weapon station
24 DUPLIT Anti-tandem dynamic ERA
25 ZASLON Active protection system
26 GARANT Suppression system
27 LIMPID ARMOR Circular review system
28 PC-LBT-02 Workshop of maintenance operation

29 MTO Mobile maintenance workshop
30 TRM Mobile tank repair workshop
31 SRZ-A Mobile repair and maintenance workshop
32 KRAZ-6322 Cross-country vehicle
33 KRAZ-5233BE Cross-country vehicle
34 KRAZ-6443 Wheeled truck-tractor
35 ATS-10 The road tanker

UPGRADE

38 T-72M1 Tank with controlled weapon complex
39 T-55AMV Tank
40 BMP-1M Infantry combat vehicle
41 MT-LBMSH Light multi-purpose tracked vehicle
42 BTR-70 Armoured personnel carrier
43 BRDM-2 Armoured reconnaissance-patrol vehicle

REPAIR

46 GRAD Combat vehicle BM-21 122mm MLRS
47 SHILKA 23mm antiaircraft Self-propelled gun ZSU-23-4
48 AKATSiya 152mm Self-propelled howitzer 2S3M
49 GVOZDKA 122mm Self-propelled howitzer 2S1
50 D-30 122mm howitzer
51 MT-12 100mm anti-tank gun
52 TRM Mobile repair workshop
UKRINMASH - 25 YEARS AT THE INTERNATIONAL MARKET

The State Self-Supporting Foreign Trade and Investment Firm «Ukrinmash» which is the participant of the State Concern “UkrOboronProm”, operates at the international market since 1991.

The aim of the Firm is to implement the interests of Ukraine in the field of military-technical cooperation with foreign partners. «Ukrinmash» has built reliable business connections with countries from every part of the world. The key mission is service excellence, reliability and customer satisfaction.

«UKRINMASH» OFFERS:

- Export of weapons and military products in the field of armoured military vehicles, aircraft engineering, shipbuilding industry, radar ammunition and air defence, as well as rocket artillery weapons.
- Transfer of technologies and know-how, including the development of military factories and MRO centers.
- Maintenance, repair / overhaul and upgrade of military equipment.
- Training of foreign military personnel.
- Import of weapons and military products to Ukrainian Army and all other military and defence structures.
- R&D, investment and other partnership opportunities.
- Disposal, demilitarization of the old military equipment and territory demining.
- Marketing, advertising and intermediary services.

For the last few years Ukrainian Defence Industry has been in the stage of transformation into a highly effective structure. This process is taking place due to new technologies, products, innovations, efficient management and top-professionals who have come into this field. Today we are offering the new armament business culture, customer oriented, flexibility and personal approach.

We represent Ukrainian Enterprises of the State Concern «UkrOboronprom» which employ more than 80 thousand people, and the products of other Ukrainian enterprises. Ukraine is a reliable partner who exports the defence products to many countries of the world. The potential for development of the Ukrainian Military Industrial Sector is a tremendous one who is only at the beginning of its realization and prospects.

We suggest the widest product range in the field of aviation, armour, radio, artillery, as well as ship building and rocket industry, etc.

Ukraine makes part of prestigious club of the countries which has mastered the closed cycle in aircraft building, radio intelligence and radio-electronic warfare, whereas the Ukrainian export potential is among the best 10 in the world.

SE “Ukrinmash” is a unique special exporter and integrator which makes an important part of the Ukrainian Military Industrial Sector honored to be your reliable partner. We are proud that SE “Ukrinmash” is one of the most experienced and one of the biggest export-import companies of Ukraine which has been working in the armament and military hardware market for more than 26 years.

We present you our products range as well as services in repairing, upgrading, joint promotion of the products and cooperation in the military markets. SE “Ukrinmash” is not only reacting to the state of the market but initiates trends in the world market. For nowadays, SE “Ukrinmash” is making a new history of the military industry of Ukraine.

Sergii Slusarenko
Chief Executive Officer
SE SSFTIF «Ukrinmash»
**MAIN BATTLE TANK**

**BM Oplot**

The BM Oplot main battle tank (MBT) is a combat vehicle that features a high firepower, reliable protection and high mobility. The MBT is fitted with integrated fire control system which enables the tank crew to perform combat day-and-night operations under various weather conditions. Being very reliable in operation, the construction of the main battle tank is fairly easy to study. The MBT can perform any combat missions at the up-to-date level.

The BM Oplot tank is protected against all types of anti-tank weapons, including tandem warhead ammunition.

<table>
<thead>
<tr>
<th>MAIN PERFORMANCE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHARACTERISTICS</strong></td>
</tr>
<tr>
<td><strong>Operating temperature range:</strong></td>
</tr>
<tr>
<td><strong>ARMAMENT</strong></td>
</tr>
<tr>
<td>Main</td>
</tr>
<tr>
<td>Coaxial</td>
</tr>
<tr>
<td>Anti-aircraft</td>
</tr>
<tr>
<td><strong>AMMUNITION</strong></td>
</tr>
<tr>
<td>Main gun</td>
</tr>
<tr>
<td>Coaxial machine gun</td>
</tr>
<tr>
<td>Anti-aircraft machine gun</td>
</tr>
<tr>
<td><strong>OBSTACLES</strong></td>
</tr>
<tr>
<td>Deep fording:</td>
</tr>
<tr>
<td>- without preparation</td>
</tr>
<tr>
<td>- with preparation</td>
</tr>
<tr>
<td>Gradient</td>
</tr>
<tr>
<td>Side slope</td>
</tr>
<tr>
<td>Vertical obstacle</td>
</tr>
<tr>
<td>Trench</td>
</tr>
<tr>
<td>Movement control system:</td>
</tr>
<tr>
<td>Fire control system:</td>
</tr>
<tr>
<td>Protection:</td>
</tr>
<tr>
<td>Collective protection system:</td>
</tr>
<tr>
<td>Satellite navigation system:</td>
</tr>
<tr>
<td>Air conditioning system:</td>
</tr>
<tr>
<td>Driver’s night vision device:</td>
</tr>
</tbody>
</table>

**MAIN BATTLE TANK**

**Yatagan**

The MBT is intended for destroying of ground, floating and low-speed air targets day-and-night at the distances of up to 3 km (by conventional ammunition) or 5 km (by guided missiles) under any climatic conditions. The Yatagan MBT get welded steel hull and turret. The tank is fitted with built-in explosive reactive armour, as well as a navigation system, auxiliary power unit, air conditioning system, and self-entrenchment device.

<table>
<thead>
<tr>
<th>MAIN PERFORMANCE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHARACTERISTICS</strong></td>
</tr>
<tr>
<td><strong>Fuel capacity:</strong></td>
</tr>
<tr>
<td><strong>Operating temperature range:</strong></td>
</tr>
<tr>
<td><strong>Power output:</strong></td>
</tr>
<tr>
<td><strong>Average off-road speed:</strong></td>
</tr>
<tr>
<td><strong>Crossing range off-road:</strong></td>
</tr>
<tr>
<td><strong>OBSTACLES</strong></td>
</tr>
<tr>
<td>Deep fording:</td>
</tr>
<tr>
<td>- without preparation</td>
</tr>
<tr>
<td>- with preparation</td>
</tr>
<tr>
<td>Gradient</td>
</tr>
<tr>
<td>Side slope</td>
</tr>
<tr>
<td>Vertical obstacle</td>
</tr>
<tr>
<td>Trench</td>
</tr>
<tr>
<td><strong>ARMAMENT</strong></td>
</tr>
<tr>
<td>Main</td>
</tr>
<tr>
<td>Coaxial</td>
</tr>
<tr>
<td>Anti-aircraft</td>
</tr>
<tr>
<td><strong>AMMUNITION</strong></td>
</tr>
<tr>
<td>Main armament</td>
</tr>
<tr>
<td>Coaxial machine gun</td>
</tr>
<tr>
<td>Anti-aircraft machine gun</td>
</tr>
<tr>
<td>Fire control system:</td>
</tr>
</tbody>
</table>

**COMBAT WEIGHT**

**51 t**

**Engine**

6TD-2 Diesel

**Power-to-weight ratio, hp/t**

23.53

**Crew**

3

**Maximum speed, km/h**

70

**Crushing range on road, km**

500
## MAIN PERFORMANCE DATA

**BULAT**

- **Specific ground pressure:** 0.98 kPa/cm²
- **Power output:** 850 hp
- **Transmission:** Mechanical, planetary, with seven-speed forward and one-speed reverse transmission

**OVERALL DIMENSIONS:**
- **Length with the gun:** 9225 mm
- **Width:** 3650 mm
- **Height:** 2184 mm
- **Ground clearance:** 430 mm

**OBSTACLES:**
- **Gradient:** 30 deg
- **Vertical obstacle:** 0.8 m
- **Trench:** 2.85 m
- **Deep fording without preparation:** 1.8 m

**ARMAMENT:**
- **Main:** 125 mm smooth-bore KBA-3 (2A85M-1) gun
- **Coaxial:** 7.62 mm KT-7.62 or PKT machine gun
- **Anti-aircraft:** 12.7 mm KT-12.7 (NDTV) machine gun

**ARMOUR:**
- **Main Armament:** 45 rounds
- **Coaxial machine gun:** 450 rounds
- **Anti-aircraft machine gun:** 1250 rounds
- **Armoured protection:** armour-proof armour against KS and BPG including built-in protection system and additional passive protection

---

## ARMOURED PERSONNEL CARRIER

### BTR-4

- **Weight with additional protection:** up to 21.5 %
- **Configuration:** 8x8
- **Maximum power:** 316 kW (430 hp)
- **Transmission:** automatic, hydro-mechanical
- **Number of gears:** 5 forward gears + 1 reverse gear

**POWER-TO-WEIGHT RATIO**
- with anti-bullet protection: at least 24.5 hp/t
- with additional protection: at least 19.6 hp/t
- Maximum speed in water: up to 10 km/h

**OBSCTACLES:**
- **Gradient:** 30 deg
- **Side slope:** 25 deg
- **Operating temperature range:** -40°C to +50°C
- **Navigation system:** SN-3000B Russian satellite system
- **Short-wave radio set coverage:** 20 km
- **Additional protection:** provides protection against large-calibre guns and special-calibre automatic guns
- **Towing force of the winch:** 9 t
- **Winch drive:** hydraulic

**ARMAMENT:**
- **Automatic Gun:** ZTM-1, 30 mm
- **Coaxial machine gun:** KT-7.62, 7.62 mm
- **Grenade launcher:** KBA-117 (AG-17), 30 mm
- **Anti-tank missile complex:** complex 212
- **Maximum target depressing range:** 5000 m

---

**ARMOURING**

- **Weight anti-bullet protection:** 17.5 %
- **Engine:** DEUTZ or 3TD
- **Crew:** 3
- **Trunks:** 100
- **Maximum speed, km/h:** 100
- **Cruising range on road, km:** 690

### MAIN BATTLE TANK

**BULAT**

- **Combat weight, t:** 45
- **Engine:** STDFM
- **Power-to-weight ratio, hp/t:** 18.9
- **Crew:** 3
- **Maximum speed, km/h:** 60.5
- **Cruising range on road, km:** 458-550

Is intended to destroy all types of ground and low-flying low-speed air targets. The additional protection package provides the tank protection against various types of destruction weapons. In order to increase protection of the BM Bulat MBTs and their crews in case of a fire in the tank’s fighting compartment or power pack compartment, the tank is fitted with a quick-response fire extinguishing system. It is possible to install additional equipment, namely: auxiliary power unit, power pack thermal protection, air-conditioning system, etc.
ARMORED MILITARY VEHICLES
ARMORED PERSONNEL CARRIERS

ARMORED PERSONNEL CARRIER

**BTR-3E1**

BTR-3E1 armored personnel carrier (APC) is designed for mechanized infantry units transportation and fire support. It can be used as a basic vehicle for equipping quick-reaction forces and marine units. The APC can operate day-and-night, under various climatic conditions, on hard-surface roads, off-road and in NBC environment.

**MAIN PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Type of armour protection</th>
<th>Belief-proof</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration</td>
<td>8x8</td>
</tr>
<tr>
<td>Maximum speed in water</td>
<td>up to 110 km/h</td>
</tr>
<tr>
<td>Power output</td>
<td>350 hp</td>
</tr>
<tr>
<td>Transmission</td>
<td>Automatic</td>
</tr>
<tr>
<td>Turret</td>
<td>Stabilized</td>
</tr>
</tbody>
</table>

**OVERALL DIMENSIONS:**

<table>
<thead>
<tr>
<th>Length</th>
<th>7850 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>2900 mm</td>
</tr>
<tr>
<td>Height</td>
<td>2744 mm</td>
</tr>
</tbody>
</table>

**OBS TACLES:**

<table>
<thead>
<tr>
<th>Gradient</th>
<th>30 deg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side slope</td>
<td>25 deg</td>
</tr>
<tr>
<td>Vertical obstacle</td>
<td>0.5 m</td>
</tr>
<tr>
<td>Trench</td>
<td>2 m</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-40 to 55°C</td>
</tr>
</tbody>
</table>

**ARMAMENT:**

<table>
<thead>
<tr>
<th>Automatic gun caliber</th>
<th>30 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammunition load for the automatic gun</td>
<td>400 rds</td>
</tr>
<tr>
<td>Machine gun caliber</td>
<td>7.62 mm</td>
</tr>
<tr>
<td>Ammunition load for the machine gun</td>
<td>2000 rds</td>
</tr>
<tr>
<td>Automatic grenade launcher calibre</td>
<td>30 mm</td>
</tr>
<tr>
<td>Ammunition load for the automatic grenade launcher</td>
<td>87 rds</td>
</tr>
</tbody>
</table>

| Anti-Tank Guided Missiles (ATGMs) | 4 pcs |

**DOZOR-B**

The Dozor-B armored personnel carrier (APC) is a multi-purpose wheeled vehicle designed to transport cargo and personnel providing protection against small arms and weapons of mass destruction. It can be used day-and-night moving on hard-surface roads and off-road.

This vehicle can be converted into:
- Armored personnel carrier
- Armored vehicle
- NBC reconnaissance vehicle
- Command vehicle
- Medical vehicle
- Reconnaissance vehicle
- General purpose vehicle

**MAIN PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>6x6</th>
</tr>
</thead>
</table>

**OVERALL DIMENSIONS:**

<table>
<thead>
<tr>
<th>Length</th>
<th>5650 mm (without the winch) 5660 mm (with the winch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>2450 mm</td>
</tr>
<tr>
<td>Height</td>
<td>2760 mm</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>400 mm</td>
</tr>
<tr>
<td>Gradient</td>
<td>31 deg</td>
</tr>
</tbody>
</table>

**ARMAMENT:**

<table>
<thead>
<tr>
<th>Machine gun model</th>
<th>NSVT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibre</td>
<td>12.7 mm</td>
</tr>
<tr>
<td>Control</td>
<td>Overhead</td>
</tr>
<tr>
<td>Aiming angles, elevation</td>
<td>-3° to +80°</td>
</tr>
<tr>
<td>Aiming angles, traversing</td>
<td>360°</td>
</tr>
<tr>
<td>Ammunition</td>
<td>400 rds</td>
</tr>
<tr>
<td>NBC system</td>
<td>Firing-and-ventilating unit</td>
</tr>
<tr>
<td>Navigation system</td>
<td>Satellite, SN-3003 Beast</td>
</tr>
<tr>
<td>Air conditioning system capacity</td>
<td>4.4 kW</td>
</tr>
<tr>
<td>Maximum vision range of infrared night vision device</td>
<td>180 m</td>
</tr>
<tr>
<td>HIF radio set coverage</td>
<td>25 km</td>
</tr>
<tr>
<td>Winch</td>
<td>30 cm, length of 4000 kg</td>
</tr>
<tr>
<td>Central tyre inflation system</td>
<td>Remote regulation of pressure depending on terrain conditions</td>
</tr>
</tbody>
</table>

**Weight:** 16.0 t

**Engine:** MTU BR105T21 DEUTZ BF6M 1013S

**Crew:** 3

**Troops:** 6-8

**Maximum speed, km/h:** 110

**Cruising range, km:** 600

**Combat weight:** 7800 kg

**Engine:** DEUTZ BF4M 1013FC

**Crew:** 3

**Troops:** 8

**Maximum speed, km/h:** 90-110

**Cruising range on road, km:** 700
ARMORED MILITARY VEHICLES
OTHER WHEELED AND TRacked VEHICLES

ARMoured Repair and Recovery Vehicle

**ATLET**

The Atlet armoured repair and recovery vehicle is designed for recovery and towing of damaged armoured vehicles, welding and excavation, as well as transportation of up to 1.5 tonnes of spare parts and consumables.

### MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th><strong>DIMENSIONS</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>8800 mm</td>
</tr>
<tr>
<td>Width</td>
<td>3960 mm</td>
</tr>
<tr>
<td>Height (including NSVT-12.7 AAMG)</td>
<td>2740 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DEEP FORGING</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>without preparation</td>
<td>1.8 m</td>
</tr>
<tr>
<td>with preparation</td>
<td>5 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MAIN WINCH</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum tractive force</td>
<td>250 kN</td>
</tr>
<tr>
<td>Rope operating length</td>
<td>130 m</td>
</tr>
<tr>
<td>Rope winding and unwinding speed at force up to 250 kN</td>
<td>10/min</td>
</tr>
<tr>
<td>Drive</td>
<td>Mechanical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AUXILIARY WINCH</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum tractive force</td>
<td>9 kN</td>
</tr>
<tr>
<td>Rope operating length</td>
<td>260 m</td>
</tr>
<tr>
<td>Drive</td>
<td>Hydrostatic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CRANE</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum capacity</td>
<td>25 t</td>
</tr>
<tr>
<td>Maximum radius</td>
<td>6.8 m</td>
</tr>
<tr>
<td>Jib swinging angle</td>
<td>0-75°</td>
</tr>
<tr>
<td>Jib traversing angle</td>
<td>360°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>LOADING PLATFORM</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading area</td>
<td>1280-1960 mm</td>
</tr>
<tr>
<td>Carrying capacity</td>
<td>1000 kg</td>
</tr>
</tbody>
</table>

---

UNIVERSAL MULTI-PURPOSE TRACTOR

**BTS-5B**

The BTS-5B universal multi-purpose tractor is intended to repair, recover, tow damaged material, to transport spare parts and tools. The BTS-5B tractor can be fitted with modern communication facilities: R-173M radio set and TPUR-174 intercom.

### MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th><strong>WINCH ROPE</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>200 m</td>
</tr>
<tr>
<td>Diameter</td>
<td>28.5 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AUXILIARY MECHANICAL WINCH WITH HYDRAULIC DRIVE</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric welding equipment, welding current</td>
<td>up to 300 A</td>
</tr>
<tr>
<td>Cargo platform, load-carrying capacity</td>
<td>1.5 t</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ARMAMENT</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12.7 mm NSV anti-aircraft machine gun</td>
<td>1 pcs</td>
</tr>
<tr>
<td>AKMS assault rifle</td>
<td>2 pcs</td>
</tr>
</tbody>
</table>

---

**Dimensions, mm** | 7890X3460X2687
**ARMORED MILITARY VEHICLES**

**OTHER WHEELED AND TRACKED VEHICLES**

**ARMORED RECOVERY AND REPAIR VEHICLE**

**BREM-2**

The BREM-2 armoured recovery and repair vehicle is intended for:
- Towing of damaged and faulty BMP-1, BMP-2 vehicles and vehicles developed from them;
- Pulling of bogged-down vehicles with effort up to 20 tf;
- Lifting of loads featuring weight up to 1.5 t;
- Repair and maintenance of BMP-1, BMP-2 vehicles and vehicles developed from them.

**MAIN PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Type of vehicle</th>
<th>Tracked, armoured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>BMP-1 combat armoured vehicle</td>
</tr>
<tr>
<td>Full combat weight, t</td>
<td>13</td>
</tr>
<tr>
<td>Crew</td>
<td>4</td>
</tr>
</tbody>
</table>

**ARMAMENT**

<table>
<thead>
<tr>
<th>Machine gun</th>
<th>7.62 mm PKM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammunition load</td>
<td>2,000 cartridges</td>
</tr>
<tr>
<td>Engine, type</td>
<td>UTD-26, four-stroke diesel, V-6</td>
</tr>
<tr>
<td>Power output</td>
<td>300 hp</td>
</tr>
</tbody>
</table>

**ARMORED RECOVERY AND REPAIR VEHICLE**

**BTR-3BR**

The vehicle is intended to prepare for recovery and to tow damaged armoured vehicles, to carry out welding and excavation works, to transport spare parts and expendable materials within the weight limit of up to 2 t.

**MAIN PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>Armoured repair and recovery vehicle based on APC wheeled chassis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew, mm</td>
<td>3</td>
</tr>
<tr>
<td>Troops, men</td>
<td>2</td>
</tr>
</tbody>
</table>

**CRANE EQUIPMENT:**

- Load capacity, t: at least 2 with a lift of 3.5 m
- Hook height, m: 4.5

**WINCH:**

- Pulling tongs, t: 6
- Pulling tongs with triple pulley system, t: 15
- Usable rope length, m: 50

**CUTTING AND WELDING SYSTEM:**

- Cutting and welding metal with thickness up to 10 mm at distances up to 20 m

**AUXILIARY POWER UNIT:**

- Capacity, kW: 8

**LOADING PLATFORM:**

- Carrying capacity, t: up to 1

**ARMAMENT:**

- Machine gun caliber, mm: 7.62
- Ammunition allowance, pcs: 1500 (1000)
- Communication equipment: At the demand of the customer
- Firefighting system: Automatic
- Air conditioner/heater, kW: 10/18
- Smoke screen laying system: «Tucha», 6 mortars
REPAIR AND RECOVERY VEHICLE
BREM-4K

The BREM-4K vehicle is intended to conduct technical reconnaissance on the battlefield during day-and-night time; take in tow damaged vehicles; carry out load-lifting works; welding, etc. The vehicle is a modification of the BTR-4 armoured personnel carrier.

<table>
<thead>
<tr>
<th>MAIN PERFORMANCE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration</td>
</tr>
<tr>
<td>Dimensions</td>
</tr>
<tr>
<td>Operating temperature, °C</td>
</tr>
<tr>
<td>Maximum gradient, deg</td>
</tr>
<tr>
<td>Cruising range, hrs</td>
</tr>
<tr>
<td>Transmission, type</td>
</tr>
<tr>
<td>Load-lifting capacity, t</td>
</tr>
<tr>
<td>Welding current, A</td>
</tr>
<tr>
<td>Tractive effort</td>
</tr>
<tr>
<td>Additional towing means</td>
</tr>
</tbody>
</table>

CASUALTY EVACUATION VEHICLE
BSEM-4K

Intended for searching and evacuation of wounded from mass destruction places and medical service providing (incl. first aid during transportation) in different time and season as well as to use as mobile bandaging room. The vehicle constitutes a modification of the BTR-4 vehicle.

<table>
<thead>
<tr>
<th>MAIN PERFORMANCE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew</td>
</tr>
<tr>
<td>Weight</td>
</tr>
</tbody>
</table>

Weight: 22
Engine: YAMZ-7511.10
Crew: 4
Maximum speed, mph: 100
**Medical Evacuation Vehicle**

**MRV**

Medical Evacuation Vehicle was developed on the basis of the BMP-1 and, depending on the set of medical equipment.

**Main Performance Data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Tracked, armoured, amphibious</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Medical Compartment Holds:</strong></td>
<td>12 boxes for storage of medical equipment, dressing material and medicines</td>
</tr>
<tr>
<td>Dressing table</td>
<td></td>
</tr>
<tr>
<td>Sanitary section</td>
<td></td>
</tr>
<tr>
<td>Set of medical equipment</td>
<td></td>
</tr>
<tr>
<td>6 stretchers (3 pcs. on either side)</td>
<td></td>
</tr>
<tr>
<td><strong>Casualties Capacity on Stretchers</strong></td>
<td>6</td>
</tr>
<tr>
<td>For seriously wounded men</td>
<td></td>
</tr>
<tr>
<td>For lightly wounded men</td>
<td>12</td>
</tr>
<tr>
<td><strong>New Communication Facilities</strong></td>
<td></td>
</tr>
<tr>
<td>Radio set</td>
<td>R-173</td>
</tr>
<tr>
<td>Radio receiver</td>
<td>R-173</td>
</tr>
<tr>
<td>Intercom &amp; switching system</td>
<td>R-174</td>
</tr>
</tbody>
</table>

**Armored Medical Vehicle**

**BTR-3S**

BTR-3S Armored Medical Vehicle is intended to search and evacuate wounded men from fires and provide them with medical service (including first aid during transportation) under different natural-climatic conditions and during any time of the year, day and night, and also to be used as mobile bandaging room.

**Main Performance Data**

<table>
<thead>
<tr>
<th>Armament</th>
<th>The self-powered open antiaircraft-machine-gun installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine gun</td>
<td>NSV1 (KT-12.7)</td>
</tr>
<tr>
<td>Caliber</td>
<td>12.7 mm</td>
</tr>
<tr>
<td><strong>Quantity of Places for Transportation of Wounded Men</strong></td>
<td></td>
</tr>
<tr>
<td>Lightly wounded (in a sitting position)</td>
<td>6</td>
</tr>
<tr>
<td>Critically wounded patients (on a litter)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Combat Weight, t**

- MRV: 14
- BTR-3S: 15.5

**Engine**

- MRV: UTD-20
- BTR-3S: MTU 6R106TD21

**Dimensions, mm**

- MRV: 6755x3600
- BTR-3S: 7850x2900x2800

**Crew**

- MRV: 3
- BTR-3S: 3

**Maximum Speed, km/h**

- MRV: 100
COMBAT MODULE

BM-3 SHTURM

The BM-3 Shturm combat module is a remotely controlled weapon station which can be installed on any type of light armoured vehicles. The BM-3 Shturm is intended to destroy enemy personnel from a stationary position or on the move, to suppress fire emplacements, and to engage other targets. It is also fitted with optical-television sight system.

MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th>ARMAMENT (INTEGRATED INTO THE SHTURM (OVERHEAD WEAPON STATION))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automatic gun</strong></td>
</tr>
<tr>
<td><strong>Caliber</strong></td>
</tr>
<tr>
<td><strong>Machine-gun</strong></td>
</tr>
<tr>
<td><strong>Caliber</strong></td>
</tr>
<tr>
<td><strong>Anti-tank missile system</strong></td>
</tr>
<tr>
<td><strong>Automatic grenade launcher</strong></td>
</tr>
<tr>
<td><strong>Caliber</strong></td>
</tr>
<tr>
<td><strong>Smoke-screening system</strong></td>
</tr>
</tbody>
</table>

AIMING DRIVES OF THE OWS

<table>
<thead>
<tr>
<th>Type</th>
<th>Electromechanical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aiming angles</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Traversing</strong></td>
<td>360°</td>
</tr>
<tr>
<td><strong>Elevation</strong></td>
<td>-5° to +45°</td>
</tr>
</tbody>
</table>

AIMING DRIVES OF THE OWS

<table>
<thead>
<tr>
<th>Weapon stabiliser</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td><strong>Type TV</strong></td>
</tr>
<tr>
<td><strong>Number of control channels</strong></td>
</tr>
<tr>
<td><strong>Panoramic observation system</strong></td>
</tr>
<tr>
<td><strong>Weight including ammunition</strong></td>
</tr>
</tbody>
</table>

REMOTE WEAPON STATION

SHKVAL

The Shkval remote weapon station (OWS) is intended to destroy enemy personnel from a stationary position or on the move, to suppress fire emplacements, and to engage other targets. The design of the Shkval remote weapon station enables an easy way to replace the available weapon.

MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th>ARMAMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automatic gun</strong></td>
</tr>
<tr>
<td><strong>Caliber</strong></td>
</tr>
<tr>
<td><strong>Machine-gun</strong></td>
</tr>
<tr>
<td><strong>Caliber</strong></td>
</tr>
<tr>
<td><strong>Anti-tank missile system</strong></td>
</tr>
<tr>
<td><strong>Automatic grenade launcher</strong></td>
</tr>
<tr>
<td><strong>Caliber</strong></td>
</tr>
<tr>
<td><strong>Smoke-screening system</strong></td>
</tr>
</tbody>
</table>

AIMING DRIVES OF THE OWS

<table>
<thead>
<tr>
<th>Type</th>
<th>Electromechanical / manual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aiming angles</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Traversing</strong></td>
<td>360°</td>
</tr>
<tr>
<td><strong>Elevation</strong></td>
<td>-6° to +50°</td>
</tr>
</tbody>
</table>

FIRE CONTROL SYSTEM CONSISTS OF

<table>
<thead>
<tr>
<th>Weapon stabiliser</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

TANDEM-2’ SIGHTING SYSTEM

<table>
<thead>
<tr>
<th>Type TV</th>
<th>TV (or TV&amp;B), day-and-night, with integrated laser rangefinder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of control channels</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Auxiliary Sight</strong></td>
<td>FZU-7M</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Electromechanical</td>
</tr>
<tr>
<td><strong>Weight including ammunition</strong></td>
<td>within 1900 kg</td>
</tr>
</tbody>
</table>
The BM-7 “PARUS” combat module is intended to destroy enemy personnel from a stationary position or on the move, to suppress fire emplacements, and to engage other targets.

**COMBAT MODULE**

**BM-7 “PARUS”**

**WEAPON STATION**

**BAU-23X2**

### MAIN PERFORMANCE DATA

**ARMAMENT**

- **Automatic gun**: ZTM-1 or ZAKZ
- **Caliber**: 30 mm
- **Ammunition allowance**: 300 pcs
- **Machine gun**: KT or PKT
- **Caliber**: 7.62 mm
- **Ammunition allowance**: 2000 pcs
- **Grenade launcher**: AG-17
- **Caliber**: 30 mm
- **Ammunition allowance**: 149 pcs
- **Anti-tank guided missile**: “Barrel”
- **Ammunition allowance**: 4 pcs

**ADDITIONAL EQUIPMENT**

- **Self-screening system**: LIRKEY

**FIRE CONTROL SYSTEM, COMPLETE WITH WEAPON STABILIZER**

- **Type**: Bipolar electromechanical "Track" Sighting System
- **Type TV (or TV&IR)**: Day-and-night, with integrated laser rangefinder
- **Number of control channels**: 1 or 2

### MAIN PERFORMANCE DATA

**GUN**

- **Number**: 2
- **Type / designation**: automatic / 2A73M
- **Caliber**: 23 mm

**FIRE RATE**

- **Maximum**: 850 rpm
- **Mode 0,25**: 25% of the max mode
- **Mode 0,9**: 30% of the max mode
- **Maximum firing range**: 2 000 m
- **Ammunition**: at least 200 (2x100) rds

**MACHINE GUN**

- **Designation**: K7-7,62 (PKT)
- **Caliber**: 7,62 mm
- **Ammunition**: at least 2 000 (8x250) rds

The weapon station is intended to fire at personnel and armoured targets (both ground and air ones).
**ANTI-TANDEM DYNAMIC ERA**  
**DUPLET**

Anti-tandem Dynamic ERA «DUPLET» is designed for protection from unitary and tandem cumulative threats, subcaliber armor piercing shells and "cannonball" type ammunition.

### MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Protection type</th>
<th>Dynamic multi-functional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of armor piercing capability of unitary RPG (types: PG-7V, PG-9V, PG-7M, PG-7V-L, PG-7V-K, PG-8), tandem grenades (types: PG-7V, PG-7M, PG-8) and anti-tandem weapons with unitary and tandem wadless cannonball ammunition</td>
<td>80-90%</td>
</tr>
<tr>
<td>Reduction of armor piercing capability of armor piercing subcaliber shells</td>
<td>80-90%</td>
</tr>
<tr>
<td>Enhanced protection against 9mm bullets caliber 7.62 mm, 12.7 mm, 14.5 mm</td>
<td>Provided (area zones protected by DERA blocks)</td>
</tr>
<tr>
<td>Protection against tandem grenades of 11.42 mm caliber grenade launchers RPG-30 («Koch», RPG-72 «Koch») and DP-64</td>
<td>Provided in complex with APS «Shevron» or «Zaslon»</td>
</tr>
<tr>
<td>Operational reliability</td>
<td>100%</td>
</tr>
<tr>
<td>Weight of 1 m² of protection</td>
<td>400-515 kg</td>
</tr>
</tbody>
</table>

### Dynamic protection block structure


---

**ACTIVE PROTECTION SYSTEM**  
**ZASLON**

The ZASLON active protection system is designed to protect the stationary and moving facilities against anti-tank strike devices with a grazing and diving trajectory. It can also be integrated with other armoured combat vehicles as well as being used to protect stationary installations.

- Provides protection to main battle tanks
- Capable to single out the targets
- Autonomous, automatic and self-tested
- Day-and-night, and all-weather operating.

### MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Target Detection</th>
<th>Radar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected Area</td>
<td>± 150-180°</td>
</tr>
</tbody>
</table>

### SPEED OF DEFEATED OBJECTS

<table>
<thead>
<tr>
<th>Minimum speed</th>
<th>70 m/sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed</td>
<td>more than 1200</td>
</tr>
</tbody>
</table>

- Weight (depends on protection level): from 50 to 130 kg
- Power Consumption, maximum: 0.2 kW
- Readiness Time: 01 min
- Possibility to install on light moving facilities: available
- Interference Immunity: available

Hidden Operation: high
**SUPPRESSION SYSTEM**

**GARANT**

"Garant" product is designed for radio suppression of receiving sections of various radio technical facilities, radio communication channels of stationary, mobile and portable radio stations, radio telephones of cellular communication systems as well as for protection of mobile facilities (columns on the move and single combat and transport facilities) by preventing a radio-controlled explosion of explosive devices (mines, fougasses et al.).

The task is accomplished by radiating a hampering radio signal over the whole frequency range where the use of the mentioned control radio links is possible.

The use of this product allowed to neutralize several attempts of a radio-controlled explosion of an automobile column on the move (explosions occurred after the column transit of the spot of radio-controlled fougasse laying beyond the boundaries of the radio suppression zone).

**Brief Description of System**

"Garant" system consists of 4 BPRL-1, -2, -3, -4 radio suppression units. Each of the BPRL-1, -2, -3 units consists of 4 jamming transmitters and one high-efficiency 4-lead wide-band antenna with the circular radiation pattern in the horizontal plane.

Serviceability of "Garant" system in the wide range of the supply voltage from 10 to 36 V allows to use it on the transport facilities which have the electrical systems with the rated voltage of 12 V and 24 V.

---

**CIRCULAR REVIEW SYSTEM**

**LIMPID ARMOR**

Circular review system for armored vehicles consists of helmet with integrated HoloLens glasses (glasses of reality augment (Microsoft corp.) box of cameras (optical and thermal camera mode), located on the sides of armored vehicles and LimpidArmor software. The solution could be used for any armored vehicles and would provide 360° review video with high resolution in real-time.

**MAIN PERFORMANCE DATA**

- Review of 360 degrees (optical and thermal imaging modes) at the distance of 350 m
- Streaming video without delay
- Highlighting - allies- and identified -enemy- positions
- Lock - lock - launch system
- Automatic target tracking
The structure of the PC-LBT-02 includes:
- Technical support of machine, on chassis of KRAZ-6322 type with installation of manipulator capacity from 4 to 9 tons. Machine is designed to expand and collapse the complex at the site of deployment, providing installation and dismantling works.
- Four modules (one container size: 6058mm/2438 mm/2450 mm).
- Axle trailer with a diesel - generator 40 kW.
- Overlap type Alaska (awning fabric on a metal frame).
- Floor coverings type Portable Road.

Field complex PC-LBT-02 is intended for armored vehicles maintenance (armored personnel carriers BTR-3, BTR-4, BTR-70, BTR-80) in the field.

The complex is divided into 8 sections:
- Welding compartment, for ferrous and non-ferrous metals welding.
- Storage compartment. Performs maintenance, charging and recovery of AV batteries.
- Modular compartment. Works on replacing the seals, gaskets and seals installed on units running gear, work inspection, detection and control units undercarriage AV: wheel gears, torsion of shafts, hydraulic shock absorbers.
- Compartment of power unit is designed for work with deflection, maintenance and configuration of the engine.
- Metallwork and mechanical compartment. Here are held bench, milling and lathe work.
- Washing and painting compartment is performed by washing, cleaning and painting work.
- Arms compartment. The department conducted a partial disassembly of weapons, its verification and configuration.
- Engineering compartment. The department is working with technical control over the process of repair and maintenance of AV.

### MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis</td>
<td>KRAZ-6322 with left-sided steering wheel</td>
</tr>
<tr>
<td>Body type</td>
<td>Full metal welded</td>
</tr>
<tr>
<td>OVERALL DIMENSIONS OF A WORKSHOP, MM:</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>8926</td>
</tr>
<tr>
<td>Width</td>
<td>2760</td>
</tr>
<tr>
<td>Height</td>
<td>3649</td>
</tr>
<tr>
<td>Workshop gross weight, kg</td>
<td>15700</td>
</tr>
<tr>
<td>Top speed, km/h</td>
<td>60</td>
</tr>
<tr>
<td>Fuel consumption, l/100km</td>
<td>32</td>
</tr>
<tr>
<td>Top inclination angle, %</td>
<td>55</td>
</tr>
<tr>
<td>Wading depth, m</td>
<td>12</td>
</tr>
<tr>
<td>INTERNAL BODY DIMENSIONS, MM:</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>4820</td>
</tr>
<tr>
<td>Width</td>
<td>2330</td>
</tr>
<tr>
<td>Height</td>
<td>1950</td>
</tr>
<tr>
<td>System voltage (body), V</td>
<td>24</td>
</tr>
</tbody>
</table>

### MOBILE MAINTENANCE WORKSHOP MTO

The MTO Mobile Maintenance Workshop is designed to provide:
- Service of filtering elements;
- Maintenance of aggregates, knots, mechanisms of the machines, etc.;
- Replacement of knots of a running gear
- Load-lifting works at replacement of aggregates;
- Assembling and reassembling mechanical works;
- Painting of the vehicle;
- Battery recharging of armored personal carriers;
- Fueling of armored personnel carriers from extraneous capacity.
MOBILE TANK REPAIR WORKSHOP

TRM

The TRM mobile tank repair workshop is intended to carry out the following operations:
- Maintenance of aggregates, knots, mechanisms of the machines, etc.
- Arms service before and after shooting, reloading of magazines
- Replacement of knots of a running gear
- Load-lifting works at replacement of aggregates;
- Welding of ferrous metals of aluminium and its alloys, etc.;
- Assembling and reassembling mechanical works - Painting of the machines;
- Battery recharging of armoured personal carriers by workshop means;
- Start of engines of armoured personal carriers by electric way from an external source.

MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Chassis</th>
<th>KA-6322 with left-sided steering wheel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body type</td>
<td>Full metal welded</td>
</tr>
</tbody>
</table>

OVERALL DIMENSIONS OF A WORKSHOP, MM:
- Length: 8905
- Width: 2700
- Height: 3940
- Workshop gross weight, kg: 15700
- Top speed, km/h: 60
- Fuel consumption, л/100km: 39
- Top inclination angle, %: 58
- Working depth, m: 1.2

INTERNAL BODY DIMENSIONS, MM:
- Length: 4020
- Width: 2530
- Height: 1950
- System voltage (body), V: 24

MOBILE REPAIR AND MAINTENANCE WORKSHOP

OF THE ACCUMULATOR BATTERIES

SRZ-A

The SRZ-A workshop is intended for maintenance and repair of accumulator batteries (AB), their charging and performance of control-training cycles, and also for preparation and storage of required stocks of electrolyte. Allows to carry out all set of works in field conditions, far from and water supply sources.

MAIN PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Car frame</th>
<th>KA-632227</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body type</td>
<td>Full metal welded</td>
</tr>
</tbody>
</table>

WORKSHOP OVERALL DIMENSIONS, MM:
- Length: 8900
- Width: 2700
- Height: 3940
- Total weight of a workshop, kg: 15700
- Maximum speed, km/h: 60
- Fuel consumption, л/100km: 39
- Maximum grade ascending ability, degree: 25
- Forcible depth, m: 1.2

INTERNAL DIMENSIONS OF A BODY, MM:
- Length: 4020
- Width: 2530
- Height: 1950
- System voltage (body), V: 24, 220, 380
- External covering: Green, protective

THE STATION CAN CARRY OUT FOLLOWING TASKS:
- Definition of technical state of AB
- Repair of AB with partial dismantling and replacement of unsuitable details
- Cutting of leaked details necessary for repair
- Preparation of the distilled water and electrolyte
- AB charging at a constant value of strength of charging current
- To make discharging - charging cycle
- To make charging cycle of 12 batteries at the same time
CROSS-COUNTRY VEHICLE

**KRAZ-6322**

The KRAZ-6322 cross-country vehicle with centralized tires pumping equipped with the side platform, is intended for transportation of various military cargoes and personnel, for towing of special trailers, as well as airplanes on airfields, and can be operated on all roads, off-roads and cross-country.

**MAIN PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load carrying capacity</td>
<td>12000 kg</td>
</tr>
<tr>
<td>Designated permissible payload</td>
<td>12000 kg</td>
</tr>
</tbody>
</table>

**TOWED TRAILER PERMISSIBLE FULL MASS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>On all kinds of roads, off-roads and cross-country</td>
<td>10000 kg</td>
</tr>
<tr>
<td>On hard covered roads</td>
<td>30000 kg</td>
</tr>
<tr>
<td>On air fields on concrete airfields</td>
<td>75000 kg</td>
</tr>
<tr>
<td>Platform inside dimensions</td>
<td>5000 x 2520 x 360 mm</td>
</tr>
<tr>
<td>With extension side boards</td>
<td>5000 x 2520 x 1030 mm</td>
</tr>
</tbody>
</table>

**CLUTCH-1-DISK, DRY**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear box</td>
<td>mechanical, 2-range, 8-speed</td>
</tr>
<tr>
<td>Final drive</td>
<td>central axles, 2-stage, 1-speed, with inter-wheel lockable differentials, through type intermediate axle</td>
</tr>
<tr>
<td>Transfer case</td>
<td>mechanical, 2-shift, with inter axle lockable differential</td>
</tr>
<tr>
<td>Tyres</td>
<td>1300 x 530-533</td>
</tr>
<tr>
<td>Maximum negotiable upgrade slope</td>
<td>56 %</td>
</tr>
<tr>
<td>Turning radius</td>
<td>13.5 m</td>
</tr>
<tr>
<td>Depth of crossing ford with the hard bottom</td>
<td>1.2 m</td>
</tr>
</tbody>
</table>

**KRAZ-5233BE**

The KRAZ-5233BE cross-country vehicle with centralized tires pumping equipped with the side platform, is intended for transportation of military purpose and staff, as well for transport and special trailers, aircraft on airfields towing on all kinds of roads, off roads and cross country.

**MAIN PERFORMANCE DATA**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load carrying capacity</td>
<td>6100 kg</td>
</tr>
<tr>
<td>Designated permissible payload</td>
<td>7100 kg</td>
</tr>
</tbody>
</table>

**TOWED TRAILER PERMISSIBLE FULL MASS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>On all kinds of roads, off-roads and cross-country</td>
<td>7000 kg</td>
</tr>
<tr>
<td>On hard covered roads</td>
<td>10000 kg</td>
</tr>
<tr>
<td>On air fields on concrete airfields</td>
<td>30000 kg</td>
</tr>
<tr>
<td>Platform inside dimensions</td>
<td>4500 x 2520 x 360 mm</td>
</tr>
<tr>
<td>With extension side boards</td>
<td>4500 x 2520 x 1030 mm</td>
</tr>
<tr>
<td>Engine</td>
<td>V-shaped, turbocharged diesel</td>
</tr>
<tr>
<td>Power, at 2100 rpm</td>
<td>243 (330 kW (hp))</td>
</tr>
</tbody>
</table>

**CLUTCH-1-DISK, DRY**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear box</td>
<td>mechanical, 2-range, 8-speed</td>
</tr>
<tr>
<td>Final drive</td>
<td>central axles, 2-stage, 1-speed, with inter-wheel lockable differentials, through type intermediate axle</td>
</tr>
<tr>
<td>Transfer case</td>
<td>mechanical, 2-shift, with inter axle lockable differential</td>
</tr>
<tr>
<td>Tyres</td>
<td>1300 x 530-533</td>
</tr>
<tr>
<td>Maximum negotiable upgrade slope</td>
<td>56 %</td>
</tr>
<tr>
<td>Turning radius</td>
<td>13.0 m</td>
</tr>
<tr>
<td>Depth of crossing ford with the hard bottom</td>
<td>1.2 m</td>
</tr>
</tbody>
</table>
**WHEELED TRUCK-TRACTOR**

**KRAZ-6443**

The KRAZ-6443 wheeled truck-tractor is intended for transportation of different loads with a heavy-load semitrailer towed and can be operated on all roads and off-roads.

<table>
<thead>
<tr>
<th>MAIN PERFORMANCE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allowable vertical coupling seat loading</strong></td>
</tr>
<tr>
<td><strong>Allowable total weight of a towed semitrailer</strong></td>
</tr>
<tr>
<td><strong>Allowable total weight of motor vehicle itself</strong></td>
</tr>
<tr>
<td><strong>Engine</strong></td>
</tr>
<tr>
<td><strong>Number of cylinders</strong></td>
</tr>
<tr>
<td><strong>Power, at 2100 rpm</strong></td>
</tr>
<tr>
<td><strong>Gear box</strong></td>
</tr>
<tr>
<td><strong>Driving axles</strong></td>
</tr>
<tr>
<td><strong>Tyres</strong></td>
</tr>
<tr>
<td><strong>Rated fuel consumption at permanent speed 63 km/h</strong></td>
</tr>
<tr>
<td><strong>Turning radius</strong></td>
</tr>
</tbody>
</table>

**THE ROAD TANKER**

**ATS-10**

The road tanker ATS-10 on KRAZ-260 (KRAZ-6322) chassis is intended for temporary storage and for transportation of light petroleum products on all roads and for the fuelling of ground equipment in field conditions.

<table>
<thead>
<tr>
<th>MAIN PERFORMANCE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Turbo-charge</strong></td>
</tr>
<tr>
<td><strong>Power, at 2100 mm·1</strong></td>
</tr>
<tr>
<td><strong>Maximum torque of engine, at 1200-1400 mm·1</strong></td>
</tr>
<tr>
<td><strong>Tires</strong></td>
</tr>
<tr>
<td><strong>Weight of filled road tanker</strong></td>
</tr>
<tr>
<td><strong>Allowable total weight of a towed trailer on hard roads</strong></td>
</tr>
<tr>
<td><strong>Pump system capacity</strong></td>
</tr>
<tr>
<td><strong>Consortial composition of dispensing hoses system</strong></td>
</tr>
<tr>
<td><strong>Through one dispensing hose with cock</strong></td>
</tr>
<tr>
<td><strong>Through two dispensing hoses with cock</strong> (simultaneously)</td>
</tr>
<tr>
<td><strong>Overall dimensions</strong></td>
</tr>
</tbody>
</table>

- **Wheel arrangement**: 6X6
- **Engine**: turbocharged diesel YAMZ-7511.10-16
- **Truck total weight, kg**: 31700
- **Maximum speed, km/h**: 60
- **Fuel tank, l**: 2X250

- **Wheel arrangement**: 6X6
- **Engine**: turbocharged diesel YAMZ-238D
- **Total weight, kg**: 21810
- **Tank capacity, m³**: 10
- **Maximum speed, km/h**: 80
**ARMORED MILITARY VEHICLES UPGRADE**

**TANK WITH CONTROLLED WEAPON COMPLEX**

**T-72M1**

The tank is fitted with a modern fire control system and guided weapon system, which ensure increase in fire power due to the installation of guided weapons that provides firing of guided missiles, semi-automatic and manual loader of a “Kombat” guided missile, armament control drive with electro-hydraulic elevation drive and electro-machine traverse drive, which leads to the decrease in fire hazard in the tank, infra-red spot with improved characteristics, for increase in the night-time target detection range, thermal sleeves on a main gun barrel to reduce its bend, that occurs due to non-uniform heating when firing frequency, 12.7mm NSV anti-aircraft machine gun with manual control from the tank commander.

<table>
<thead>
<tr>
<th>MAIN PERFORMANCE DATA</th>
<th>T-72M1</th>
<th>T-72M1 WITH CONTROLLED WEAPON COMPLEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat weight, t</td>
<td>41</td>
<td>44.5</td>
</tr>
<tr>
<td>Length, mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gun forward</td>
<td>9,550</td>
<td>9,550</td>
</tr>
<tr>
<td>- hull</td>
<td>6,800</td>
<td>6,800</td>
</tr>
<tr>
<td>Width with protective side skirts, mm</td>
<td>3,570</td>
<td>3,570</td>
</tr>
<tr>
<td>Height to turret roof, mm</td>
<td>2,190</td>
<td>2,190</td>
</tr>
<tr>
<td>Road clearance, mm</td>
<td>470</td>
<td>470</td>
</tr>
<tr>
<td>Negative obstacles:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- gradient, deg</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>- roll, m</td>
<td>1.2 (with USCE – 5)</td>
<td>1.2 (with USCE – 5)</td>
</tr>
<tr>
<td>Type of engine</td>
<td>V-46-4, diesel</td>
<td>V-48-4, diesel</td>
</tr>
<tr>
<td>Maximum power, hp</td>
<td>780</td>
<td>840</td>
</tr>
<tr>
<td>Maximum speed, km/h</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Cruising range, km</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Crew</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**ARMAMENT**

- Type of main gun: 125mm 2A46 (smooth-bore)
- Ammunition load, rds: 44
- Type of machine gun: 7.62mm PKT
- Ammunition load, rds: 3,500
- Type of machine gun: 12.7mm NSV
- Ammunition load, rds: 3,000
- Armament stabilizer: 2E30MK
- Sight-rangerfinder: TPK-K1
- Sight active – passive: TPK-3-49
- Guided weapon system: -
- Type of sight: -
- Intra-red beam source: -
- L-44 spotlight with infra-red filter

**T-55AMV**

The T-55AMV tank modernization is proposed to be carried out as follows:
- increasing of protection ability by installation of explosive reactive armour (ERA) of “Kombat” type with installation of apply containers onto the outside parts of hull and turret, and protection side screws and enhancing of antitribe resistance (increasing of antiprojectile resistance against any ammunition with HEAT warhead is by 1.5 fold, against kinetic ammunition (APDS) — by 2.5 fold);
- increasing of mobility characteristics by installation of power plant and by strengthening of track and suspension system elements;
- increasing of fire power by installation of day gunner sight.

All samples to be modernized will be equipped with R-173M1 USW radio sets; R-173PM USW radio receivers and R-174T Intercom and switching equipment.
**INFORMATION COMBAT VEHICLE**

**BMP-1M**

- **Main Performance Data**
  - **BMP-1**
    - Gun: 2A28 smooth bore
    - Caliber, mm: 73
    - Machine gun: PKT, coaxial
    - ASGM System: 9P138M, wire
    - Grenade launcher: -
    - 30 mm gun: -
    - Sight range, m: 1730
  - **BMP-1M**
    - Gun: 2A72 smooth bore
    - Caliber, mm: 73
    - Machine gun: PKT, coaxial
    - ASGM System: 9P138M, wire
    - Grenade launcher: -
    - 30 mm gun: -
    - Sight range, m: 1730

- **Ammunition Load**
  - Projectiles to the gun, pcs: 40
  - 30 mm gun: -
  - Cartridges to the machine gun, pcs: 2000
  - Rounds with grenades in magazines, pcs: -
  - ASGM, pcs: 4
  - Operator periscope sight: 1P128M
  - Commander observance device: TKN-3E
  - Gunner air defence sight: PKU-7M

- **Sighting System**
  - Make: -
  - Type: Tandem-2

**Upgrade**

The upgraded BMP-1M vehicle exceeds the original one in combat efficiency by more than 2 times, and the BMP-2 vehicle, 1.3 times.

---

**MAIN PERFORMANCE DATA**

**MT-LBMSH**

- **Main Performance Data**
  - **Before Upgrading**
    - Type: Light, multi-purpose carrier-tractor
    - Combat weight: 12200 kg
    - Crew: landing troops, men: 13 (2 + 11)
    - Overall dimensions, mm: 6454x2659x2410
    - Clearance, mm: 400
    - Maximal speed on road, km/h: 60
    - Maximal speed on water, km/h: 5-6
    - Cruising range on the road with the main tank, km: 500
    - Engine model: YaMZ-238B
    - Combat module: TKB-61-1 complex
    - Type of main gun: -
    - Ammunition load, rds: 400
    - Type of machine gun: 7.62 mm PKT
    - Ammunition load, rds: 1000
    - Antitank guided missile system: -
    - Ammunition load: -
    - Automatic grenade launcher: -
    - Ammunition load: -
    - Power drives of armament block: hand-operated
    - Fire control system, type, label: day-optical-mechanical sight
    - Range of targets recognition: not less than 800 m by means of low-light camera or up to 2 500-3 000 m using thermal imaging camera
    - Communications: The "K-122M" VHF radio station

  - **After Upgrading**
    - Type: Full-track infantry combat vehicle
    - Combat weight: 12000 kg
    - Crew: landing troops, men: 9 (2 + 7)
    - Overall dimensions, mm: 6454x2659x2410
    - Clearance, mm: 400
    - Maximal speed on road, km/h: 60
    - Maximal speed on water, km/h: 5-6
    - Cruising range on the road with the main tank, km: 500
    - Engine model: YaMZ-238B
    - Combat module: TKB-61-1 complex
    - Type of main gun: 2A71-30 mm
    - Ammunition load, rds: 400
    - Type of machine gun: 7.62 mm PKT
    - Ammunition load, rds: 1000
    - Antitank guided missile system: "Barret'
    - Ammunition load: 4 pcs
    - Automatic grenade launcher: AG-17
    - Ammunition load: 87 pcs
    - Power drives of armament block: electromechanical, remote with manual backup and two-axis stabilization
    - Fire control system, type, label: The "Track" thermal sighting system with day-night surveillance channels, self-contained laser range and all-round viewer
    - Range of targets recognition: not less than 800 m by means of low-light camera or up to 2 500-3 000 m using thermal imaging camera
    - Communications: The "K-122M" VHF radio station
**ARMORED PERSONNEL CARRIER**

**BTR-70**

**MAIN PERFORMANCE DATA**

<table>
<thead>
<tr>
<th></th>
<th>BTR-70</th>
<th>BTR-70D</th>
<th>BTR-70Mi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat weight, kg</td>
<td>11 500</td>
<td>13 000</td>
<td>11 000</td>
</tr>
<tr>
<td>Crew</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Overall dimensions, mm</td>
<td>7350</td>
<td>7350</td>
<td>7350</td>
</tr>
<tr>
<td>Lenght</td>
<td>7350</td>
<td>7350</td>
<td>7350</td>
</tr>
<tr>
<td>Width</td>
<td>2800</td>
<td>2800</td>
<td>2800</td>
</tr>
<tr>
<td>Height</td>
<td>2235</td>
<td>2235</td>
<td>2235</td>
</tr>
<tr>
<td>Ground clearance, mm</td>
<td>475</td>
<td>475</td>
<td>475</td>
</tr>
<tr>
<td>Maximum speed, km/h</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Road</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Water</td>
<td>9-10</td>
<td>9-10</td>
<td>9-10</td>
</tr>
<tr>
<td>Maximum road range, km</td>
<td>400</td>
<td>500 (840)</td>
<td>600</td>
</tr>
<tr>
<td>Maximum water endurance, hr</td>
<td>12</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>Fuel consumption per 100 km, liter</td>
<td>38-2-72</td>
<td>18-0-36</td>
<td></td>
</tr>
</tbody>
</table>

**ENGINE CHARACTERISTICS**

- **Engine model**: ZMZ-4065, 2 pcs.
- **Type of engine, quantity of cylinders, their layout**: 4-stroke, 5-cylinder diesel
- **Compression ratio**: 6.7
- **Cylinder capacity, l**: 4,25x2
- **Maximum power, kw (hp)**: 130 (175)
- **Maximum torque, kg/m**: 290 (1000)
- **Operation rotations of engine, rpm**: 2000-3200
- **Specific fuel consumption, liter/km**: 260 (175)
- **Engine weight, kg**: 275x2
- **Operational materials**: Oil: M-62/10W
- **Fuel**: Petroleum A-95, Diesel fuel
- **Guaranteed run, km**: 15 000

**ARMORED RECONNAISSANCE - PATROL VEHICLE**

**BRDM-2**

**BRDM-2**

**MAJOR PERFORMANCE DATA**

<table>
<thead>
<tr>
<th></th>
<th>BRDM-1</th>
<th>BRDM-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>GAZ-41, 8V petrol, carburetor</td>
<td>Diesel, turbocharged, L4, UD 45-362</td>
</tr>
<tr>
<td>Crew</td>
<td>4</td>
<td>3+4</td>
</tr>
<tr>
<td>Max speed km/h</td>
<td>90</td>
<td>110</td>
</tr>
<tr>
<td>Gearbox</td>
<td>4-speed, with synchronized at 3 and 4 gears</td>
<td>5-speed, fully synchronized</td>
</tr>
<tr>
<td>Clutch</td>
<td>Spring type</td>
<td>SACHS, diaphragm type</td>
</tr>
<tr>
<td>Power, HP/rpm</td>
<td>140/400</td>
<td>156/240</td>
</tr>
<tr>
<td>Torque, km</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td>Water well drive</td>
<td>mechanical</td>
<td>hydraulic</td>
</tr>
<tr>
<td>Additional side doors</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Tires</td>
<td>Pneumatic, tubeless, model K-50 (13,00-18&quot;) with regulated pressure</td>
<td>Pneumatic, tubeless, model K-125 (22,00-20&quot;) with regulated pressure</td>
</tr>
<tr>
<td>Fuel tanks, l</td>
<td>2 x 140-280</td>
<td>2 x 140-280</td>
</tr>
<tr>
<td>Fuel consumption</td>
<td>-25%</td>
<td>-25%</td>
</tr>
<tr>
<td>Cruising range, km</td>
<td>750</td>
<td>950</td>
</tr>
<tr>
<td>Weight, l</td>
<td>7,5</td>
<td>7,5</td>
</tr>
<tr>
<td><strong>WEAPONS – STANDARD TURRET OF BRDM-2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.5 mm KPVT machinegun</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ammunition load</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>7.52 mm PKT machinegun</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ammunition load</td>
<td>2000</td>
<td>2000</td>
</tr>
</tbody>
</table>

Upgraded BRDM-2 armored vehicle is intended for fire support of scout and infantry units. The vehicle is characterized by improved off-road capacity and smooth ride, for water obstacles crossing the armored vehicle is equipped with a water jet.
**COMBAT VEHICLE BM-21 122MM MLRS**

**GRAD**

Is designed to defeat manpower located on the open terrain and in shelters, unarmored material and armored personnel carriers in concentration areas, artillery and mortar batteries, command posts and other targets. Engagement distance is up to 40 km.

---

**152MM SELF-PROPELLED HOWITZER 2S3M**

**AKATSIYA**

Is intended for defeat and neutralization of manpower of the enemy, open and in field shelters; for defeat and neutralization of weapon of the enemy; for destruction of earth-and-timber pillboxes and other field emplacements, as well as for fight against artillery pieces, mechanized forces and tanks of the enemy.

---

**23MM ANTIAIRCRAFT SELF-PROPELLED GUN ZSU-23-4**

**SHILKA**

Is designed to defeat aircrafts, helicopters of the enemy and other aerial targets, light-armored ground-based targets, as well as to carry out radar surveillance of the aerial targets by means of RPK-2 (1RL33) radar station and identification friend or foe thereof.

---

**122MM SELF-PROPELLED HOWITZER 2S1**

**GVOZDIKA**

Is designed to defeat and neutralize manpower (located in open terrain and light shelters) and weapons of the ground enemy, to destroy its field fortifications and entanglements (bunkers, minefields, wire entanglements, etc.), as well as to engage tanks and mechanized forces of the enemy in the forward defensive area and to the regiment mission depth.
122MM HOWITZER D-30

Is intended for defeat of manpower and war materiel (including armored one) of the enemy in the open country and shelters. Defeat of armored objects can also be provided.

100MM ANTI-TANK GUN MT-12

Is designed to defeat armored targets, such as tanks, weapon emplacement, as well as manpower (located in open terrain and light shelters).

MOBILE TANK REPAIR WORKSHOP TRM

Is intended to carry out disassembly, assembly, welding, mechanical bench operations, as well as recharging of storage batteries during organizational repair of tanks in field conditions.