



ARMY

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# URALS: COMBAT-TESTED MOTOR VEHICLES

The Ural Motor Vehicle Plant's work has been inseparably linked with the Armed Forces. Ural's first motor vehicles – the legendary ZIS-5s – began their service on the fronts of World War II. The modern Ural motor vehicle also owes its advent to the army. In the 1960s, the Ural-375 all-drive six wheeler was designed on order from the Defense Ministry. In the early 1980s, it was replaced by the diesel-driven Ural-4320.

The advantages of Ural motor vehicles for the Army are obvious: the possibility of outdoor storage, ease of maintenance, and a number of other design features optimized over the years of operation jointly with the main customer. In addition, their high cross-country capability enables them to negotiate any



Ural-4320-31



Ural-432009-31

obstacle, while the engine hood design provides enhanced protection for the crew in combat (e.g. when a vehicle hits a mine or a ground bomb).

The compliance of the Ural-family

motor vehicles with modern technical requirements and the unification of many of their units and assemblies make them basic vehicles for the Army and allow their effective employment

jointly with armor materiel both on the march and in forward positions for towing artillery pieces and transporting cargo and personnel.

The chassis of Ural motor vehicles can carry several hundred models of armament and military equipment: multiple rocket launchers, electronic reconnaissance and communications equipment, command posts, various engineer systems, airfield equipment, repair shops, and so on.

Ural motor vehicles and chassis intended for the Army and law enforcement agencies have special painting and are provided with brackets for attaching weapons in the cabin, points for connecting up chemical and radioactive decontamination devices, a system for enhanced radio noise suppression, a set of blackout devices, an underbody light, and mounting seats for a filtering-ventilating unit and night vision devices.

All Ural army motor vehicles undergo quality control by military bodies. The plant has introduced and successfully

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operates a quality management system which is applicable to the vehicles' development, production and maintenance. The quality management system complies with the ISO 9001-94 requirements which is confirmed by certificates of TUV-CERT (Germany), Russia's State Standard Committee and the Military Register.

The development strategy of the Ural Motor Vehicle Plant is aimed at improving its product range and creating a new family of vehicles that would meet modern requirements.

In the last few years, the plant has found a reasonable compromise between vehicles' high cross-country capability and load-carrying capacity and increased the latter. The class of motor vehicles featuring a high cross-country capability and load-carrying capacity is represented by the Ural-5323 family of cabover trucks with 8 x 8 wheel arrangement, fitted with the YaMZ-238B engine (300 hp with turbo-supercharger). This design ensures optimum weight distribution among the axles, a high load-carrying capacity, maximum use of mounting capabilities, and high maneuverability and stability. The Ural Motor Vehicle Plant is Russia's only plant to serially produce all-wheel-drive four-axle trucks. The Ural-5323 is built with a standard or long wheelbase. The chassis load-carrying capacity is 10 or 15 t.

For law enforcement agencies, the enterprise has developed the Ural-532303 (8 x 8) and the Ural-432009



(6 x 6) with an armored cabin. The cross-country capability and maneuverability of the armored trucks is as high as that of the basic models. In addition, the Ural-432009 has a partially armored engine compartment and a protected fuel tank and storage battery container. The Ural-532303 and the Ural-432009 motor vehicles are intended for carrying various functional modules for transportation and other purposes, military cargoes and personnel, and for towing trailers on all types of roads and terrain.

In 2001, the Ural Motor Vehicle Plant was reorganized into a joint stock company and became part of the RusPromAvto holding company. Now it is a stable and fast-developing enterprise.

The Ural family today includes sever-

al dozen modified versions differing in the wheelbase, the length of the frame for mounting special-purpose equipment, the arrangement of the spare wheel holder, power takeoff, etc. All motor vehicles are fitted with various types of diesel engines produced by the Yaroslavl Engine Plant, including the YaMZ-236NE2 engine which meets the Euro-2 requirements. The distinguishing feature of this engine is turbo-supercharging and intermediate air cooling, which increases its power to 230 hp.

Over the first seven months of 2002, 5,123 Ural motor vehicles rolled off the assembly line. In keeping with the production plan, another 5,134 trucks must be assembled before the end of the year.

The export of Ural motor vehicles has considerably increased, especially to countries where the vehicles' technical capabilities are realized to the maximum. From January through July 2002, 2,860 vehicles were exported. Before the end of the year, exports are expected to amount to 46 percent of all sales. At present, Ural motor vehicles operate in more than 40 countries. The plant has opened agencies in North Africa and the Middle East and entered markets in Latin America and Southeast Asia.

Years of Ural motor vehicles' operation in Russia and abroad have confirmed their conformance to high requirements set for multipurpose equipment and their indispensability in fulfilling various missions at any time of the year and on any terrain.

Urals are reliable and time- and combat-tested motor vehicles. □



#### Basic Characteristics

	Ural-43206	Ural-4320-10/31	Ural-532301
Wheel arrangement	4 x 4	6 x 6	8 x 8
Weight, kg:			
gross	12,150	13,675/15,050	21,950
carried cargo	4,200	5,000/6,000	10,000
towed trailer	7,000	11,500	12,000
Maximum speed, km/h	85	75/85	85
Diesel engine:	YaMZ-236M2	YaMZ-236M2/ YaMZ-238M2	YaMZ-238B
rated power, kW (hp)	132 (180)	132 (180)/176 (240)	220 (300)
Negotiable obstacles:			
gradient, %	58	32/60	58
fording depth, m	0.7-1.2*	0.7-1.5*	1.2
vertical obstacle, m	0.5	0.55	0.5
trench crossing width, m	0.5	0.6	1.2

\*with hermetically sealed engine

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