

Armouring Ukraine: AFV production for Kiev in the post-Soviet era

[Content preview – Subscribe to Jane's Defence Weekly for full article]

In the face of Russian aggression Ukraine is seeking to update its struggling manufacturing base to bolster its AFV fleets. *Samuel Cranny-Evans and Mikhail Zhirohov report*

During the Cold War Ukraine enjoyed a unique position among Soviet states as the only country outside Russia capable of mass-producing AFVs. It also possessed several design houses and was responsible for the design and production of the T-64 main battle tank (MBT).

However, since gaining full independence in August 1991 the country's AFV manufacturing has stagnated. Such deficiencies have been laid bare by the conflict with Russian proxies and units fought in Eastern Ukraine since 2014.



A Ukrainian T-84 Oplot MBT in Kharkiv, Ukraine, on 23 February 2017. State industry's focus on thermal imaging fire-control systems led to the development of the Oplot, which passed state tests and was approved for use in Ukrainian service by the MoD in May 2009. (Maxym Marusenko/NurPhoto via Getty Images)

1761743

Independent spirit

Shedding Soviet bureaucracy was difficult for most post-Soviet republics, with Ukraine's AFV design and manufacturing processes proving to be no exception. At the time of Ukraine's independence the country had well-established state enterprises responsible for the development and production of armoured vehicles, according to A I Veretennicov's 2012 book *Development of Ukrainian Armoured Vehicles for the Period of the Last 20 Years (1992–2011)*, but 60% of its components and materials were sourced from other specialised plants throughout the Soviet Union, which prevented a closed production cycle for AFVs.

Nonetheless, the Kharkiv Morozov Design Bureau (KMDB) secured early success with a 1996 export contract with Pakistan for 320 T-80UD MBTs. The company has a long history and was among the factories evacuated to the Russian Urals in the face of the German invasion in 1941, according to the company's website. (Ironically, this move led to the establishment of Uralvagonzavod: the Russian company that would eventually compete with KMDB and best it with the introduction of the T-72.)

As was true for Ukraine's wider defence industry when independence was declared, more than 70% of the components needed by KMDB for the T-80UD MBT were manufactured elsewhere in the former Soviet Union, the company said, with political opposition preventing the provision of many key components. According to its website, KMDB ultimately became self-sufficient in the design and manufacture of the necessary parts, beginning mass production of T-80UDs for delivery to Pakistan in 1997.

The success of the T-80UD export to Pakistan was made possible by the welding of new turrets at the Azovmash production plant, which led to the final assembly of the entire turret system. Motovilikhinskije Zavody, a company based in Perm, Russia, was also involved in the modernisation of the 2A46M-1 125 mm smoothbore tank gun, which is the main armament of the T-80UD.

Nonetheless, other export ventures failed, with the T-80UD being rejected by Greece, Malaysia, and Turkey. Ukrainian industry observed that in all cases its vehicle matched the combat characteristics of its rivals, but it lacked the advanced thermal imaging fire-control systems of the German Leopard 2 or Polish PT-91 MBTs.

The Ukrainian state industry's focus on these areas led to the development of the T-84 Oplot MBT, which passed state tests and was approved for use in Ukrainian service under Order Number 252 of the Ministry of Defence (MoD) in May 2009. The Oplot was presented for the first time at the IDEX 2011 exhibition in Abu Dhabi.

In September 2011 a contract was signed with Thailand for the supply of 49 Oplot-T variants of this MBT. These had modified internal and communications equipment, including helmet microphones, and an air-conditioning system to enable the tank crew to work more comfortably in tropical

climates. Oplot-T deliveries were delayed by the conflict with Russia and its proxies from 2014, which diverted much of Ukraine's manufacturing capabilities towards providing AFVs for Ukraine's armed forces.

Ukraine's industry also attempted the development of a new armoured personnel carrier (APC) in the early 1990s based on the Russian BTR-80. The Ukrainian Army had experience of operating the vehicle and – most importantly – KMDB had a set of design drawings for it.

The United Arab Emirates' Adcom Systems provided finance after winning a contract to produce vehicles for the country's marine force, according to a 2012 article by Russia's Military-Industrial Company (VPK). Work was carried out in several areas at once, with the BTR-80's engine being upgraded, its suspension strengthened, its volume under armour increased, its firepower enhanced, and an air-conditioning system installed.

The resultant vehicle was designated the BTR-3. A total of 25 were delivered to the UAE, with the vehicle since gaining several export customers, including Nigeria and Thailand. However, the design did not enter service with Ukrainian forces until 2014.

[Continued in full version...]

(708 of 3228 words)

For the full version and more content:

Intelligence that Matters

With more than 100 years of experience in factors such as shifting defence spending and the capabilities of the world's militaries, Jane's delivers unparalleled data and insight. Our renowned open-source intelligence and potent analytical tools, backed by our deep industry expertise, is used by militaries, national security and defence industry organisations across the world to anticipate and respond to threats; identify and capture new business opportunities; and sustain defence capabilities.

To learn more visit <http://janes.com/products>

For advertising solutions visit [Jane's Advertising](#)