

# AirDefence

Péter Mujzer traces the history of Hungary's  
40M Nimród during World War Two



*Factory-fresh 40M Nimród vehicles on test trials  
with military and factory personnel in 1941.*

PÉTER MUJZER

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*'The Nimród was kept as a memento from another time'*

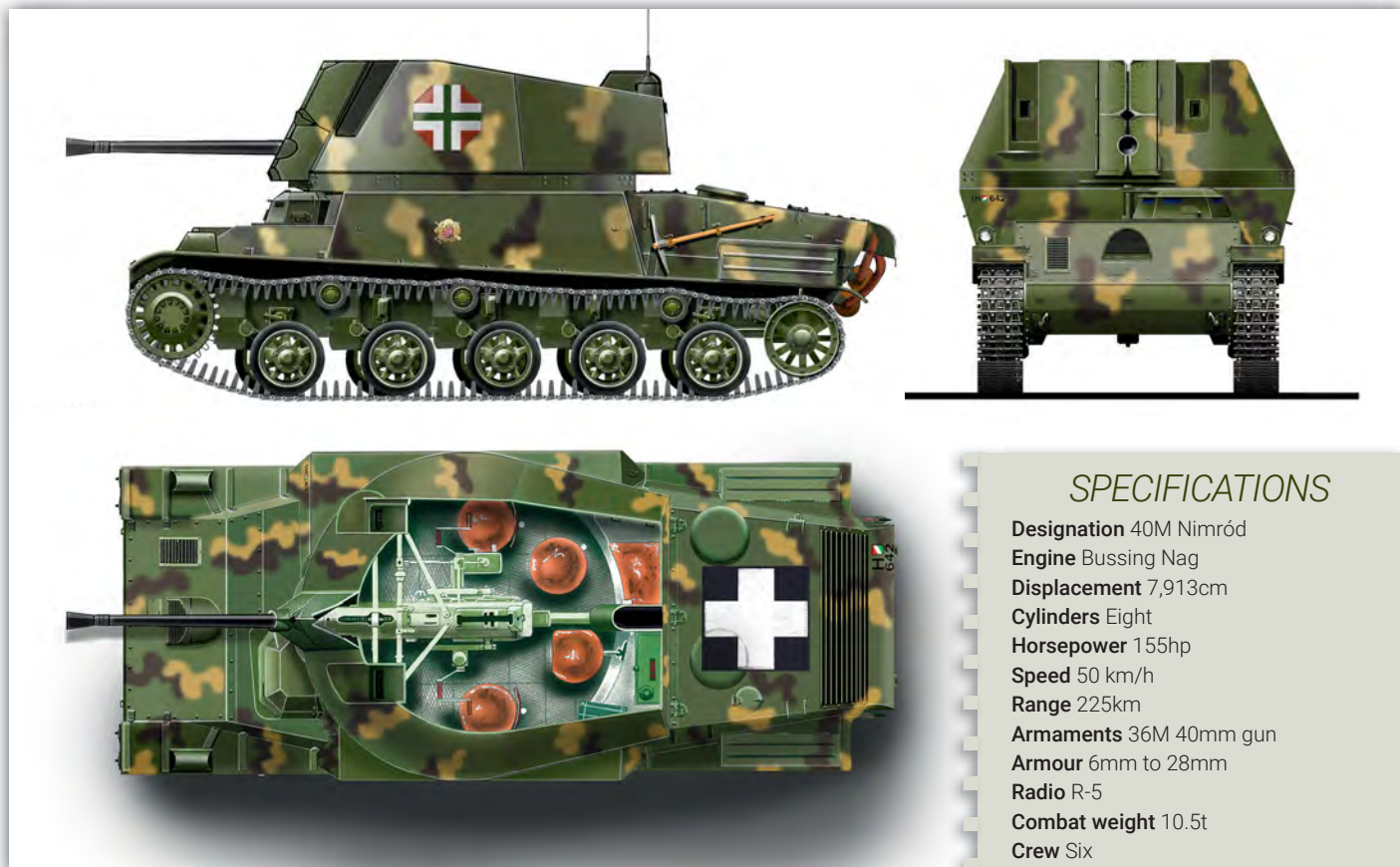
Following the end of World War One, the Hungarian military industry was in a poor state. The lost resources from territories ceded to other nations, manpower losses and the limitations imposed by the Treaty of Trianon all played their role. During the late 1920s and early 1930s, the economic situation began to improve, although Hungary's economy was largely based on agriculture.

A small number of heavy industrial companies started to play an increasingly important role in the country and from the 1930s Manfred Weiss, FÉG, Diósgyőri State Weapon Factory, Ganz, MÁVAG, Magyar Vagon és Gépgyár (Rába), GAMMA, and Danuvia provided the backbone to the Hungarian military industry. Due to financial constraints, they initially focused on repairs and modifications to existing equipment, but later worked on production under license and independent developments.

### ***The Swedish connection***

The Manfred Weiss, Ganz, MAVAG, and Magyar Vagon és Gépgyár (Rába) factories were able to preserve and later expand skills and capacities to produce armour for the Hungarian Army. Of course, in the early 1930s any work and development carried





## SPECIFICATIONS

<b>Designation</b>	40M Nimród
<b>Engine</b>	Bussing Nag
<b>Displacement</b>	7,913cm
<b>Cylinders</b>	Eight
<b>Horsepower</b>	155hp
<b>Speed</b>	50 km/h
<b>Range</b>	225km
<b>Armaments</b>	36M 40mm gun
<b>Armour</b>	6mm to 28mm
<b>Radio</b>	R-5
<b>Combat weight</b>	10.5t
<b>Crew</b>	Six

**Colour illustrations showing a front, top and side view of a 40M Nimród. TAMÁS DEÁK**

out had to be done in secret. Having procured and tested the Fiat Ansaldo tankettes, the Hungarian military recognised that modern mobile-armoured tactics called for vehicles that were more powerful than tankettes. In 1937, a Swedish L-60 Landsverk was purchased by the MAVAG Company, supported by the Ministry of Defence, and run through a series of competitive trials along with the Hungarian experimental V-4 tank. The L-60 was later put into service as the 38M Toldi light tank.

The Hungarian military realised the need for motorised and armoured units to have air and anti-tank defence. The country already had the licence to produce the L-60 (Toldi) tank, and this facilitated the adoption, after test trials by the Hungarian mobile troops, of the L-62, which Hungary first purchased without armament in 1939.

The licence for the L-62 was purchased by MAVAG in 1940 and the vehicle was officially designated the 40M Nimród self-propelled A/A-AT (anti-aircraft / anti-tank) vehicle. The original structure was modified to enlarge the turret for a four-man crew, and the 36M 40mm Bofors gun built under licence by MÁVAG was mounted on it.

### **The Nimród**

The Nimród was like the Toldi except it had a longer hull, with five road wheels and three return rollers. Towing hooks were fitted to the rear and front while a

searchlight surrounded by an armoured helmet with a bulletproof protective grille was mounted in the centre of the upper front armoured panel. The searchlight could be operated from inside the vehicle by the driver if needed. The searchlight slot also served to ventilate the brakes and power units installed in the front side of the vehicle.

The driver's position had a five-sided protective armoured head cupola with six observation slots. Three were prismatic and three had bulletproof glass. These observation slots were protected by an armoured cover on the inside which could be moved. When opened, the driver's

head protection cupola was raised on a semi-circular rail made of spherical iron mounted on a sloping armour plate.

The rotating turret situated on the top of the armoured hull housed the 36M 40mm Bofors canon and the five-man gun crew. The 40mm gun could fire 120 rounds per minute. The open-top turret was sloped and roomy, and the gun mantel was designed for maximum elevation and traverse of the Bofors gun.

The turret armour was increased to 28mm for better protection against enemy armoured vehicle and aircraft fire.

A ventilation hole protected by a bulletproof grille to cool the engine and



**Brand-new 40M Nimród vehicles parked at the automobile depot waiting for handover to the units. The vehicles had three-tone camouflage, white cross military insignia and Mechanised Branch sign painted on the hull. FORTEPAN**

ventilate the combustion gases produced during firing was located behind the turret. The engine was located in the hull, behind the fighting compartment and a 60-litre water tank and radiator were installed behind the back wall of the fighting compartment to cool the engine.

The Nimród was powered by a Ganz Büssing NAG type L8 V36 Tr, four-stroke eight-cylinder petrol engine, which was located 5° to the right of the vehicle's longitudinal axis. The fuel tanks were placed in the engine compartment and fuel capacity was 253 litres divided among three tanks (193+26+34).

In 1940, the Ministry of Defence ordered 46 Nimróds (number plate H050- 095), and in 1941 a further 89 vehicles (number plate 1H630-718) were requested from the MÁVAG factory. The first Nimród saw action in 1942, but it quickly became apparent that it was inadequate against the Russian T-34 and KV tanks due to its light armament, high silhouette, and thin armour. However, it was used successfully during the war for anti-aircraft duties.

During the latter stages of the war, from 1944-45, the Nimród received the 42M 'Kerngranate' (rocket grenade launcher) to increase its armour-

ing capability. The disadvantage of this was that the crew had to leave the vehicle to put the grenade in the barrel, so it was used only in ambush positions.

To fill a need, an armoured personnel and medical carrier based on the Nimród chassis were also designed. The vehicle was designated the 43M Lehel and the turret was replaced by a low, open-top superstructure.

However, only one example was produced. It was planned to use the Lehel as an armoured ambulance and assault engineer carrier, but due to the higher priority of other programs production was cancelled.

There was an ongoing discussion between the Ministry of Defence and the factories about the prices charged for military vehicles. In reality, the price paid by the ministry was a compromise; more or less half-way between the prices asked by the factories and the offered prices from the Ministry. The exchange rate in 1936 was US\$1 = 3.40 Pengő. The 40M Nimród's proposed factory price was 175,000 Pengő while the army offered 141,000.

### **A role change**

In 1942 the German Army altered the role of Hungarian forces in the war. The

German's needed as many troops from foreign allies as could be mustered to send to the front instead of their own forces. The 2nd Hungarian Army deployed to the Eastern Front with three infantry corps and one armoured division and a regiment-sized aviation group. The division was designated the 1st Armoured Field Division, it was an ad hoc unit, organised from different active units which provided the manpower and equipment.

The 51st A/A-AT Battalion was mobilised to provide mobile anti-tank and air-defence capabilities to the Armoured Division. It had three companies with each having six 40M Nimróds, one 38M Toldi command tank, three 38M Toldi tanks, and one 40M Nimród for use by battalion staff. The Hungarian 2nd Army was assigned to support the left wing of the German advance at Stalingrad, falling

under German Army Group B together with the 6th German and 8th Italian Armies.

The 1st Armoured Field Division's first task was to support the 7th Light Infantry Division during the attack against the bridgehead at Uryv on July 18, 1942.

In a combat report from the attack,

Nimród vehicles of the 51/3 Company, led by Captain József Henkey-Hónig, supported the advancing 30/1 Tank Company. Suddenly the Hungarian 38(t) tanks were attacked from the flank and rear by tanks of the Soviet 130th Tank Brigade.

The Nimróds immediately turned to face the attacking Russian tanks. At a distance of 500-600m, they opened fire with their 40mm guns, one scoring a deadly hit through an open driver's hatch of a T-34 tank. The 51/3 Company achieved six confirmed kills, one T-34 and five M3 Stuart tanks.

While initially successful against Soviet aircraft and tanks in early engagements, the operation at the River Don proved that the Nimród was outdated for an anti-tank role. It was too high, was difficult to hide or camouflage, the armour weak and the open turret vulnerable to enemy infantry armed with hand grenades.

The 36M 40mm Bofors canon was also found to be outdated against medium or heavier tanks. On the plus side, they did prove good mobile air-defence systems and could be used against soft land targets.

The 51st AT-AA Battalion would go

## **'The operation at the River Don proved that the 40M Nimród vehicles were outdated for anti-tank roles'**



**The 38M Toldi light tank, the licence version of the Swedish L-60 tank was the platform of the 40M Nimród Sp. AA-AT vehicle. FORTEPAN**



**Advancing 40M Nimród Sp. vehicles, the turret accommodates gun crew of five. The Bofors canon was in high angle. FORTEPAN**



**Nimród and Toldi armoured vehicles of the 52nd Sp. AA Battalion belonged to the 2nd Armoured Division advancing towards Nadworna in April 1944**



**40M Nimród Sp. AA vehicle belonged to the 1st Cavalry Division, fought on the Eastern Front in summer of 1944. PÉTER MUJZER**



**Lunch break at the Eastern Front in summer of 1942, the 40M Nimród already had two kills painted on its barrel. FORTEPAN**



**Unit sign of the 51st Sp. AT-AA Battalion, white horsed archer, painted into a rhombus, which symbolised the 1st Armoured Field Division in 1942. The white number 1 means 1st Company, on the right is the number plate H-079. FORTEPAN**  
**TOP: According to the Hungarian concept, the 40M Nimród armoured vehicles armed with 40mm 36M Bofors canons provided anti-tank and air defence capacity for the armoured divisions. This vehicle belonged to the 51st Sp AT-AA Battalion in 1942. FORTEPAN**



**40M Nimród in a battered state at the yard of the Military Academy in the late 90s, behind the Nimród is a T-34/85 tank visible. PÁLINKÁS**



**Restoration of the 40M Nimród Sp. AA vehicle in the early 2000s. PÁLINKÁS**



**The restored 40M Nimród with three-tone camouflage, white cross military insignia and the unit sign of the 1st Motorised Rifle Battalion, it had a Nimród platoon of four vehicle. PÁLINKÁS**

on to lose 15 out of its 19 Nimróds during deployment.

An operation involving Nimróds later in the war was with the deployment of the 2nd Armoured Division in April 1944. The division was exclusively armed with Hungarian-produced armoured vehicles, among them 42 Nimróds.

The 2nd Armoured Division belonged to the mobilised 1st Hungarian Army and the task of the Hungarian forces was to advance and stabilise the situation between the German Army Groups North-Ukraine and South-Ukraine along the line of Kolomea-Ottyina-Stanislavov.

The Nimróds were used for air-defence and close support role against soft targets. It was here that 1st Lt Pál Petró, who served as the commander of the 40M Nimród Sp. AA platoon distinguished himself.

On July 25 at West of Kamenna he led his 40M Nimród platoon under heavy Soviet mortar and anti-tank fire, directing his Nimród's fire on foot and in the process destroyed two Soviet mortars, two anti-tank guns and annihilated a Soviet infantry company.

### **In Soviet service**

The Red Army extensively used captured weapons, which were carefully tested and evaluated by the experts. The Soviet 18th Army established an independent tank battalion based on captured Hungarian material on September 9, 1944. Lt Gen Shuravljev, commander of the 18th Army ordered the technical chief of the army to organise an independent tank battalion with 32 armoured vehicles, among them 40M Nimród vehicles.

According to the order, the battalion was trained to operate in mountainous terrain. At the end of October 1944 the battalion possessed eight Turáns, two Toldi tanks, three Zrínyi assault howitzers and two Nimród Sp AA vehicles.

### **Camouflage**

The Hungarian armoured vehicles manufactured from 1940 were finished in French-style camouflage consisting of a base colour of dark olive green with light ochre and red-brown blotches. Until 1942, this disruptive camouflage was brush-applied with

hard-edged patterns of irregular blotches.

However, in 1942 the Hungarians began to use spray equipment, giving the camouflage patterns a more diaphanous appearance. In 1944, some of the armoured and non-armoured vehicles were uniformly painted dark green.

### **Survivors**

By the end of the war Hungary was littered with knocked-out Soviet, German and Hungarian armoured vehicles. However, just one 40M Nimród survived scrapping as retaining former Royal

Hungarian Army weapons did not fit with the narrative of the Soviet occupiers.

The Royal Hungarian Guard Rifle Battalion was organised to protect the regent of Hungary, Adm Miklós Horthy in 1943-44.

The battalion had one armoured company, with three (according to other sources six) 40M Nimród AA vehicles in July 1944. The Nimróds were

planned to be used in A/A and infantry support roles around the Castle of Buda (Budapest).

On arrival, one of the Nimróds broke down and was towed into the battalion's barracks and survived the siege of Budapest. Hidden in the yard, it survived the war and is today the only existing World War Two Hungarian armoured vehicle in the country.

Fortunately, the building was selected as premises for a war museum (which it still is) and the Nimród was kept as a memento from another time.

In the late 1980s work on restoring it began and was finished in the early 1990s. Another survivor, which was captured by the Red Army in Galicia in 1944, is on display in Russia. ◀

**The gun crew of the 40M Nimród Sp. vehicle wearing steel helmets to protect themselves in the open turret of their vehicles in the summer of 1942**

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