Restoration of M44 Self-Propelled Howitzer

BAIV BV | British American Infantry Vehicles

Titaniumstraat 11 | NL 6031 TV Nederweert | The Netherlands

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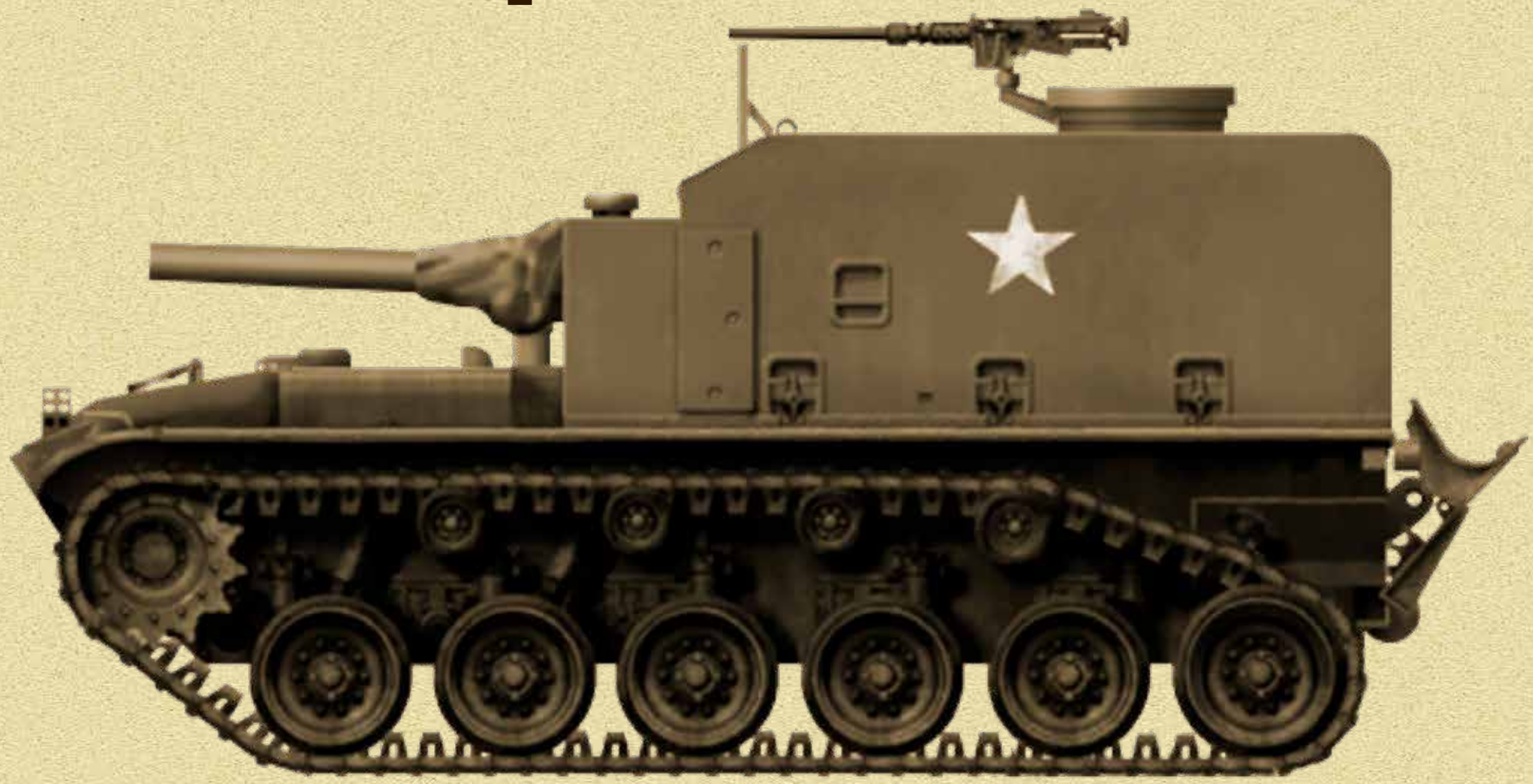
M44 Self-Propelled Howitzer 155mm



Technical Specifations

Model:	**M44 Self-Propelled Howitzer 155mm**	
Manufacturer:	**USA Massey Harris company**	
Production period:	**Around 1950–1960**	
Build date:	**5-20-1954**	
Serial no.:	**535**	
USA registration:	**12F147**	
Weight:	**32 short tons (29,000 kg)**	
Crew:	**5 (i.e. 2 Loaders, Gunner, Commander, Driver)**	
Engine:	**Continental AOSI-895-5, 6-cylinder horizontally opposed air cooled, supercharged fuel injected gasoline engine 450 hp (340 kW)**	
	Displacement:	**895 cu in (14.67 litre)**
	Power output:	**500 bhp at 2800 RPM**
	Torque:	**1010 lb-ft at 2400 RPM (1369 N·m)**
Transmission:	**General Motors CD-500-3**	
	2 ranges forward, 1 reverse	
Suspension:	**Torsion bars**	

Speed:	**35 mph (56 km/h)**	
Range:	**75 miles (121 kilometers)**	
Fuel capacity:	**150 US gallon (567 liter)**	
Dimensions	**Length:**	**6,16 m**
	Width:	**3,24 m**
	Height:	**3,11 m**
Electrical installation:	**24 Volts**	
Armament Main:	**Howitzer 155mm M45**	
	Breech ring: no. 1098	
	Manufacturer: Ord. Corps USA WVT Arsenal 1956	
Secondary:	**M2HB .50cal Machine Gun**	
Armor:	**0.47 in. (12 mm)**	
Markings this model:	**The M44 SPH is marked as a tribute to the veterans of 2nd Battalion 20th Artillery Regiment**	
	There moto was *“Deep Strike!”*	

M44 SPH 155mm History

In 1946-1947 the US Army sought to replace the outmoded 155m Howitzer M41 'Gorilla' with a self-propelled Howitzer, that provided a better protection for the crew, i.e. having a roof.
This led to the development of two vehicles: the T98 with a 105mm gun and the T99 with a 155mm gun. Both were based on the newly-built T41 light tanks, giving it increased battlefield mobility. The T99 was designated by the US Army.

Initial design

The five road wheels and the track idler of the M41 were replaced by six road wheels in the design of T99E1. The drive sprocket stayed at the front side along with the relocated engine compartment, which allowed for a fixed, fully-enclosed armored superstructure over the rear. Four track return rollers were used in the track-over-wheel arrangement.

The initial design of the T99E1 had an enclosed gun compartment on special request of the US Army in order to protect the crew for battlefield dangers.

The vehicle was fitted with a vehicle version of the 155mm M114 land howitzer. The weapon utilized a slow-cone interrupted screw breech design with a hydropneumatic recoil system. Also the recoil mechanism was slightly modified in order to fit in its new smaller mounting.
The gun could cast its 155mm projectiles out to 16,000 yards with a muzzle velocity of 1,850 feet per second. Fitted to the hull structure, the barrel proved short in appearance as no hull overhang was seen.

Unlike the M41 Howitzer the T99E1 had an enclosed gun compartment, giving the crew some armor protection, even when firing the cannon.
The crew numbered five man and included the driver in the hull structure as well as the commander, gunner and a pair of ammunition handlers.
Armor protection reached 12mm in thickness.
For defense the crew had a single .50 caliber M2 Browning machine gun mounted on top of the hull.

The T99E1 retained the Continental AOS-895-3 series 6-cylinder gasoline engine of 500 HP as seen in the M41 Howitzer, and its torsion bar suspension system. On the road the T99E1 reached 35 miles per hour speed and it had an operational range of under 100 miles.

'Crash' production for Korean War

The start of the Korean War in June 1950 led the US Army to request the Massey Harris Company to start production, even before testing of the T99E1 was fully completed. This 'crash' program -sadly- resulted in deficiencies in the design.

During testing of the T99E1 the enclosed design of the gun compartment proved to be dangerous for the crew during firing action, as toxic gasses were trapped in the superstructure. Other deficiencies if the design were poorly designed fire control equipment and some small issues.

By that time 250 units were already completed by the Massey Harris Company. Nevertheless, the US Army decided to halt further production.

Design M44

In order to address the problems found during testing the T99E1, engineers of Massey Harris Company offered a revised design called the T194E1.

First of all they adopted an open-air hull structure to dispose of the toxic gasses when firing. The open hull also gave a better working space for the crew and provided natural light, though the crew was more exposed to battlefield dangers.
The gun was replaced with the newly designed 155mm Howitzer M45. Also new ammunition was introduced using bagged charges instead of a metal cartridge case.
With these changes the vehicle was reborn under the new designation of T194 Self-Propelled Howitzer. Production restarted in 1953-1954.
At the same time a conversion program was started to alter and upgrade the original 250 T99E1's to the new T194 standard.

After formal adoption by the US Army, the vehicle was designated the M44 Self-Propelled Howitzer, and deployed to front line units in 1954.

Used in several countries

The M44 fleet of the US Army was later upgraded with AOS-895-6 engines, and thus designated the M44A1. The M44 served in the US Army until 1963.

The M44 SPH was also exported and used by the armies of West-Germany, Italy, the UK (where it was called the 'Cardinal') and Turkey.

Present restored M44

In 2021 BAIV was requested by the National Museum of Military Vehicles (NMMV) in Dubois, Wyoming to restore a M44 SPH for their collection of artillery vehicles. It took the Dutch company 2.989 man hours over a period of 10 months to complete the restoration.

Markings

The restored M44 SPH is marked as a tribute to the veterans of 2nd Battalion, 20th Artillery Regiment of the US Army. Therefore, it is marked on the front and on the back with the markings: U.S. ARMY 2F20 and D58. At the front it is also marked with the bridge classification 30.

The motto of 2nd Battalion, 20th Artillery Regiment was 'Deep Strike!'. As a tribute this text is painted on the gun of the restored M44 SPH.

2nd Battalion, 20th Artillery Regiment History

Originally the regiment was constituted on 1 July 1916 as Battery B of 20th Field Artillery in the Regular Army. On 1 June 1917 it was organized at Fort Sam Houston, Texas, as an element of the 5th Division and served in France during WW1.

In all, 6 battalions have been organized and served under the 20th Field Artillery Regiment's colors since that time. Today only the 2nd Battalion is still active.

Awards and citations

The 2nd Battalion of 20th Field Artillery Regiment -nicknamed 'Deep Strike' Battalion- was deployed to Iraq three times in support of 'Operation Iraqi Freedom'. The entire Regiment was awarded a Meritorious Unit Commendation for its 2005-2006 tour, while Batteries A, B, and C received a Meritorious Unit Commendation for deployment in 2008-2009.

Beginning with its service in World War I with the 5th Division, the Regiment has taken part in twenty campaigns with the number of campaigns from the 'War on Terrorism' it will be credited with yet to be determined. Unit decorations prior to the War on Terrorism include a Belgian Fourragere with two citations in the Order of the day of the Belgium Army, an Arrowhead device for taking part in the assault landing at Normandy, and a Presidential Unit Citation and two Valorous Unit Awards earned over the course of thirteen Vietnam War campaigns. It is a record that proves without question that the Regiment's personnel take the motto "Duty Not Reward" as a credo by which they serve.

The 20th Field Artillery Regiment Distinctive Unit Insignia is based upon its service in World War I. The shield is colored red, the branch color for Artillery, with a gold bend (diagonal bar) taken from the coat of arms of Lorraine, the French city near where they fought. A red diamond in the bend is inspired by the Shoulder Sleeve Insignia of the 5th Division (now 5th Infantry Division), the unit the Regiment was assigned to in World War I.

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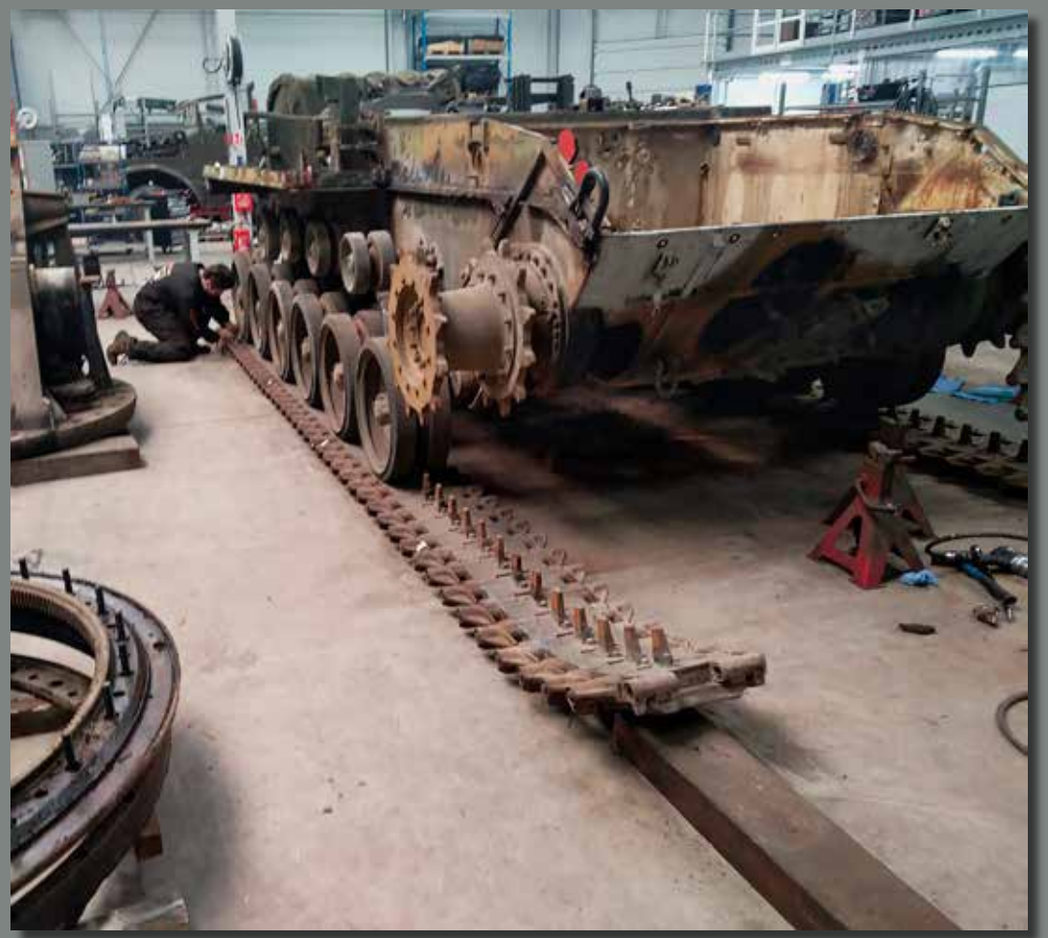


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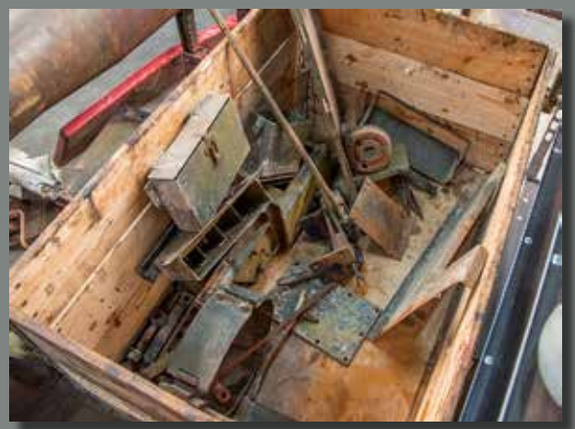



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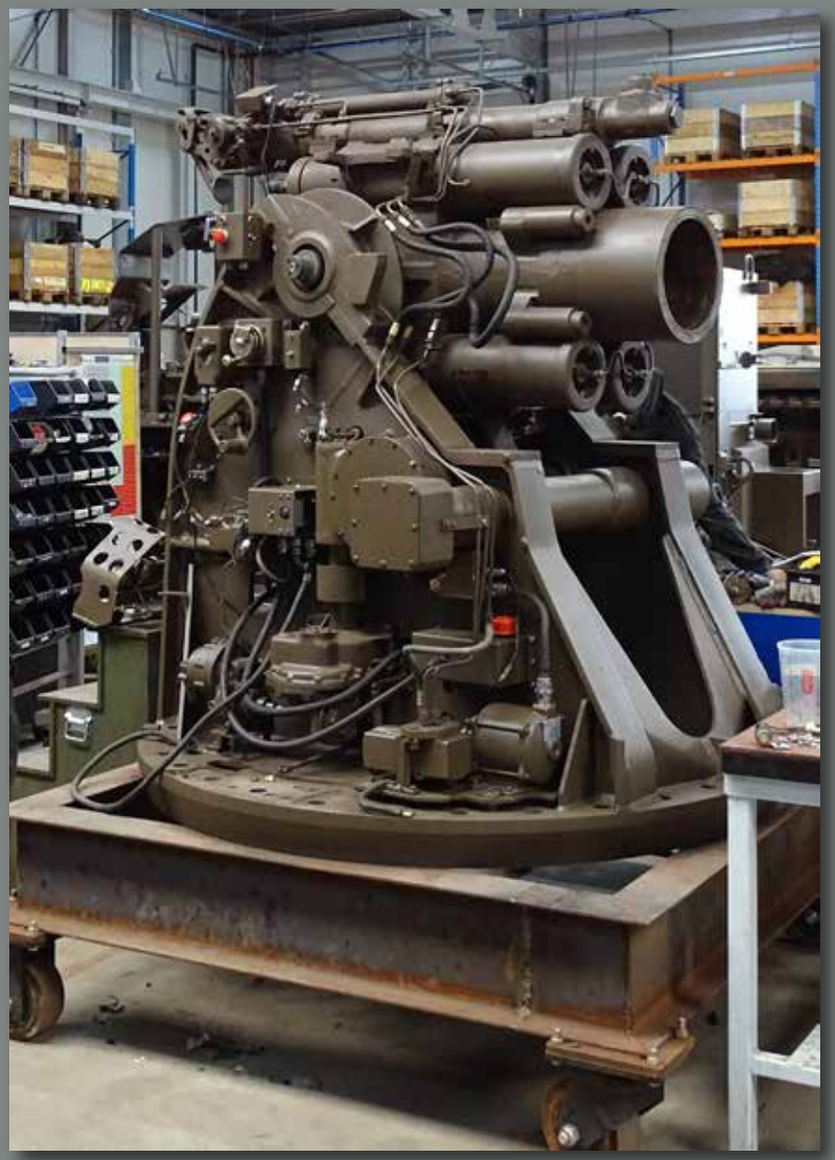


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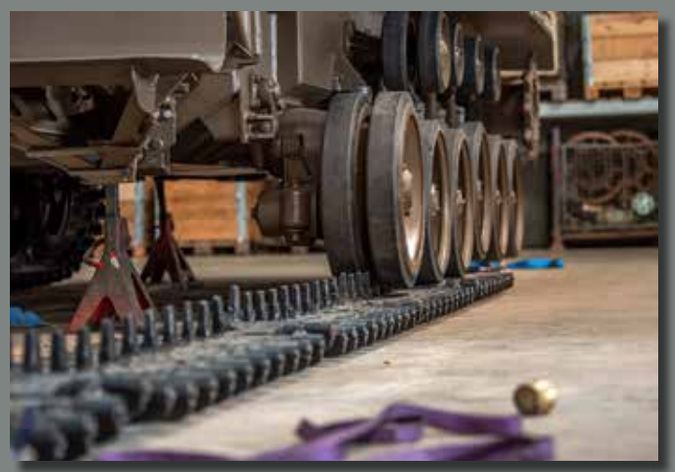

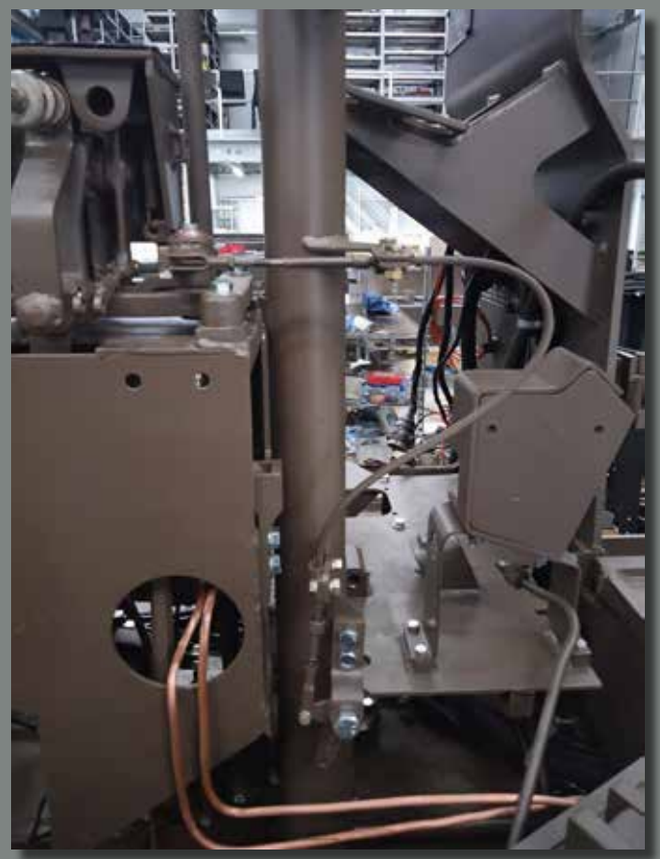


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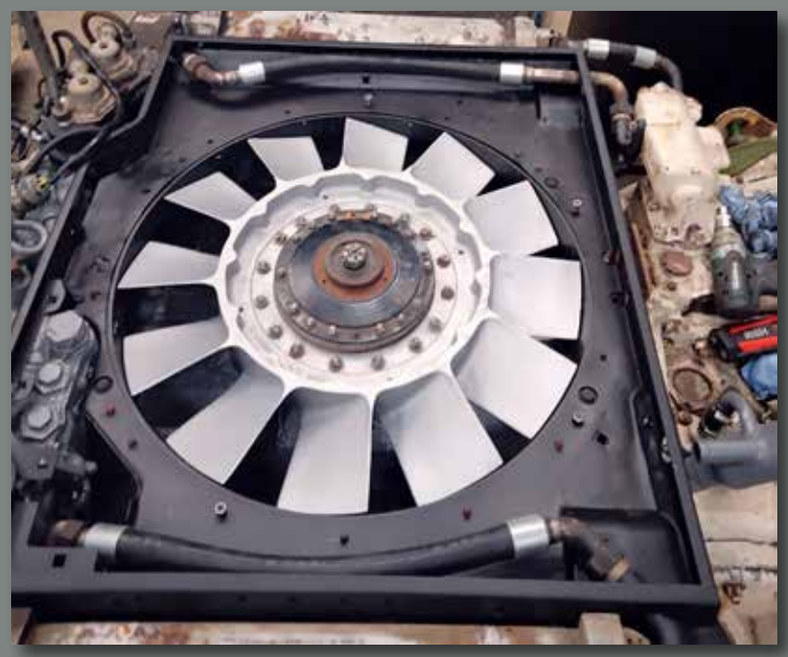



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FIRE EXTINGUISHING SYSTEM
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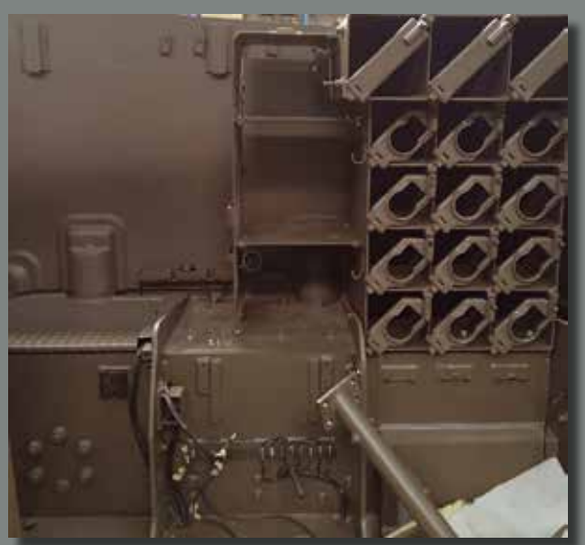





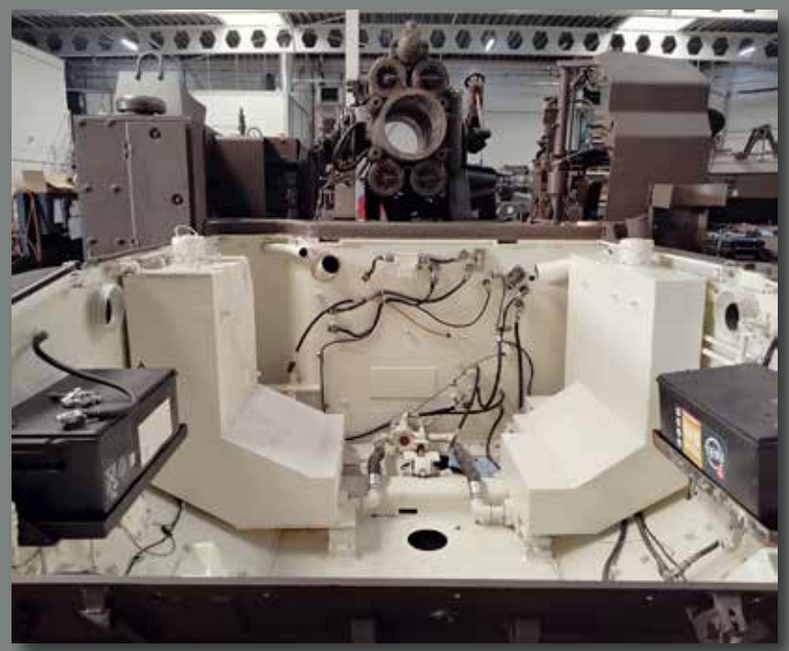


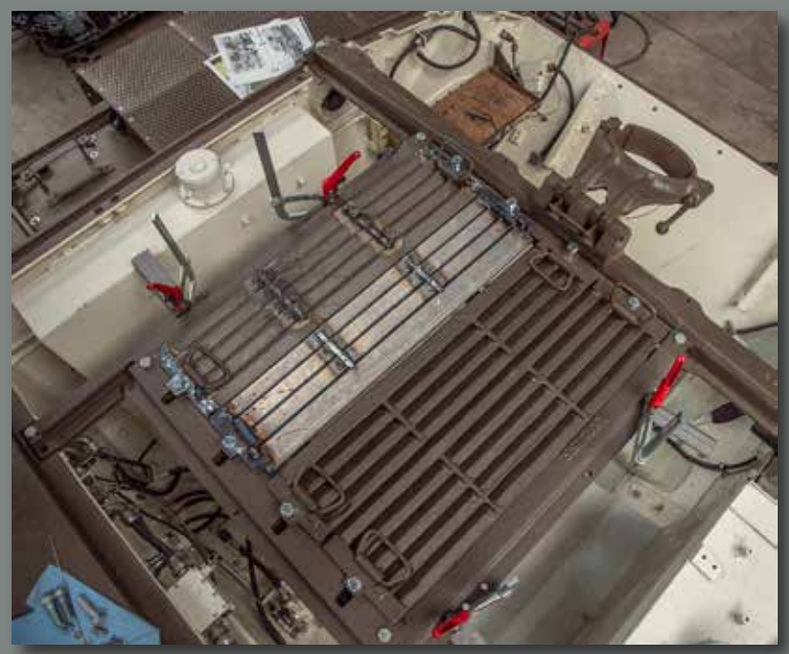


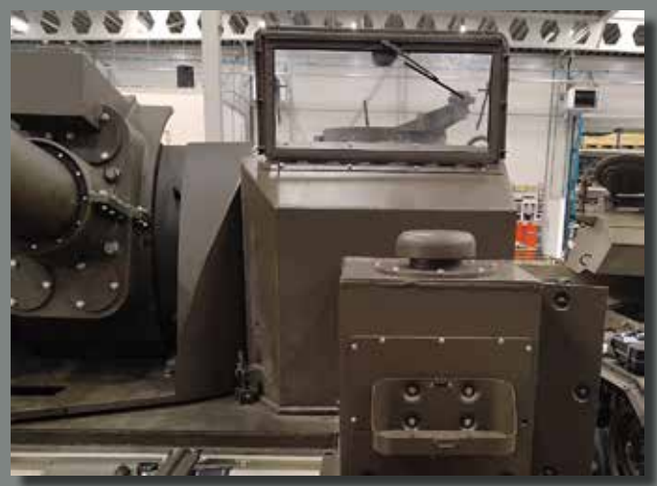

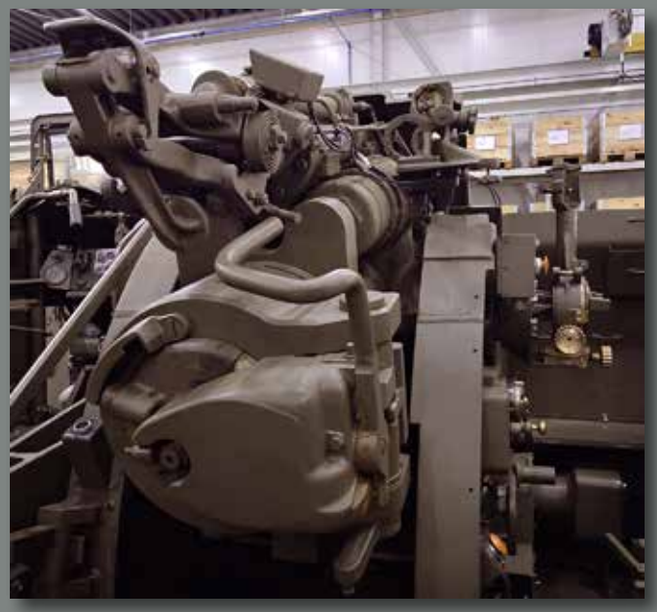


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