

M24 Chaffee of 9th Infantry Division World War Two.
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Saumur Tank Museum M24 rotates its turret left. The crew keep their heads down as in a combat situation

General Adna's Pup **The M24 Chaffee**

Every so often an armoured vehicle is produced that seems to be the perfect balance of design for the purpose for which it was intended



LEFT: A French M24 Chaffee in Vietnam. The French deployed 10 M24 tanks during the Battle of Dien Bien Phu.
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RIGHT: M24 Chaffee in Italy 1945. WARTHUNDER



Hailed by armour experts as one of the finest US tank designs of World War Two, the M24 Chaffee's late arrival in the conflict, unfortunately, limited its combat service, but its modernity ensured export around the world and its use in many post-war conflicts.

British battle experience in North Africa and US experience in the Philippines and Tunisia showed shortcomings in the M3 Stuart light tank, especially in the power of the 37mm main gun armament. A search began to produce a light tank with a 75mm gun. The M3 and M5 tanks could not mount the larger gun and the armour

was too thin for the battlefield. A new design called the T7 was developed but its weight grew to more than 25 tons and was considered too heavy for a light tank.

In April 1943 the Ordnance Corps and Cadillac, which manufactured the M5 light tank, started work on a totally new project called Light Tank T24. The weight was to be kept under 20 tons by having relatively thin armour. The glacis plate was only 25mm thick but well sloped to give much better resistance to incoming shot. The sides also received sloping armour, which permitted the use of a wide turret ring.

A new lightweight 75mm gun was developed from that used on the B-25H

Mitchell bomber. This gun had the same ballistics and ammunition as the gun on the M4 Sherman but had a much shorter recoil. Torsion Bar suspension was used which gave a smoother ride and 16in (41cm) tracks were fitted which gave better cross-country performance. The vehicle had a low silhouette and mounted a three-man turret.

The first pilot model was produced on October 15, 1943, and was extremely well received. The only changes specified were the use of wet ammunition storage, a tank commander's vision copula and a pistol port on the right-hand side of the turret.

An initial order of 1,000 tanks was quickly

The crew of an M24 along the Nakdong Riverfront during the Korean War.
WIKIMEDIA COMMONS/US ARMY



increased to 1,800. Production of the T24 started at Cadillac late April 1944 and was increased greatly when production of the M5A1 finished there in May 1944. Another M5A1 manufacturer, Massey-Harris changed from M5A1 production to making T24s. Eventual total production was 4,731.

The T24 was renamed the M24 in July 1944 and later christened the 'Chaffee' after the first commander of the US Armoured force, General Adna Chaffee. It should be noted that the US Army rarely used this name. Calling tanks by a name is a particularly British habit and a good one in the opinion of this writer.

Although by summer 1944 it was recognised that light tanks should be used in the reconnaissance role, there was a desperate need to replace the M3/M5 tanks due to their weak 37mm main armament. This was totally outclassed by German armour in the European theatre of operations (ETO). However, the distribution of the M24 was slower and more erratic than the troops hoped for. The first batch of M24s entered service early in December 1944 and began to equip both tank battalions (light) and cavalry units.

Just after the arrival of the first M24s, the Germans attacked in the Ardennes in

what is known as the 'Battle of the Bulge'. Two M24s were requisitioned to take part in the defence and given to D Company 740th Tank Battalion. Despite the crews having no training on the new tank, they found no difficulty adapting to their new mounts as the engine was the same as in the M5A1 and the gun operated like the one in the M4 Sherman. The two M24s took part in the fighting at Stoumont and La Gleize staying with the unit until the advance of 'Kampfgruppe Peiper' was halted.

The introduction of the new tank did cause concern that its shape and torsion bar suspension wheel layout would

lead to GIs mistaking it for a German tank. A programme of familiarisation took place, which led to the M24's nickname of 'Panther Pup'.

As units were equipped with the M24, they reported positively on the tank. Soldiers liked the speed and manoeuvrability even on snow and wet ground, its ruggedness and ease of maintenance, low silhouette, good sights and more powerful armament.

Also noted was the increased space in the fighting compartment which improved crew efficiency and lowered fatigue especially during combat. Negative comments were made on the thin armour and the insufficient ammunition storage capacity. These are shortcomings common to all light tank designs.

The M24 was not designed to specifically fight other tanks. There were occasions, of course, where this did occur and the M24 proved capable of knocking out tanks including the Panther if the crew could manoeuvre to hit the enemy tank on its thinner side or rear armour.

By the end of the war in Europe in May 1945, the M24 made up about 34% of the US Army's light tanks. The army in Italy had a much lower priority than the ETO and the first M24s were deployed there in March 1945 and saw action in the closing months of the war. The M24 saw no combat in the Pacific.

Only the US Marine Corps received 10 for fording tests but they rejected the tank for service use. As it entered the war so late the M24 was not used for Lend-Lease to any great extent. Britain received 302 and these replaced the Stuart Light tank in the closing weeks of the war. Units

SPECIFICATIONS

Type Light Tank M24
Nationality United States. Used by 28 other operators
Years in Service 1944 to 1953 (US Army)
Manufacturer Cadillac and Massey-Harris
Produced 1944 to 1945
Number Built 4,731
Engine Twin Cadillac Series 44T24 giving 220hp at 3,400rpm
Fuel Capacity 110 US gallons (420 litres)
Transmission Hydramatic eight forward speeds and four reverse.
Suspension Torsion Bar
Operational range 100 miles (160km)
Speed 35mph (5 km/h) on roads
Crew Five consisting of commander, gunner, loader, driver, assistant driver/radio operator.

Dimensions (overall)
Length 5.56m including the gun
Width 3m
Height 2.77m
Weight 18.37 tons



known to have operated the type were the reconnaissance squadron of the 5th Royal Inniskilling Dragoon Guards and the reconnaissance troop of 8th Hussars with the 7th Armoured Division.

By June 1945 the 7th Armoured Division had 28 on its inventory. At least two British M24s were lost in combat. One M24 was given to the Canadians for trials who reported 'it was impossible to speak too highly of its design and performance'. The Soviet Union was given two M24s in 1945 and small numbers were sent to India for training.

After World War Two the M24 was used for occupation duty in Japan as Japanese roads and bridges were not suitable for heavier tanks. When the Korean War broke out after the North Korean People's Army invaded South Korea, the North Koreans were well equipped with T-34/85 tanks, but the South Koreans and US Infantry units had no tanks to counter the T-34s. As a result, M24s were rushed from Japan, the nearest tanks the US had to the conflict.

Predictably the M24 was outclassed by the heavier T-34/85, which they could not knock out even after several



ABOVE: M24 Chaffee Germany 1945. WARLORD GAMES.COM

TOP LEFT: Classic World War Two picture of a 'Chaffee' working with infantry. May 1945. WIKIMEDIA COMMONS

Variants

Having a good suspension, engine and chassis it is not surprising the M24 was used as a basis for other armoured vehicles.

M19 Multiple Gun Motor Carriage: An anti-aircraft vehicle using a lengthened M24 hull with the engine moved to the centre.

M37 105 Howitzer Motor Carriage: This carried a 105mm Howitzer with 126 rounds in a slightly modified M24 chassis.

M41 Howitzer Motor Carriage: This mounted a heavier 155mm howitzer in a lengthened M24 hull with a centrally mounted engine.

T77 Multiple Gun Motor Carriage: This vehicle had a turret containing six 0.50in (12.7mm) machine guns and was intended for anti-aircraft defence.

NM-116: The Norwegian army decided to retain 72 of their M24 fleet in 1972 for reconnaissance vehicles after extensive modernization. This would only cost between a third to a half as much as purchasing new light tanks.

The Chilean army replaced the original 75mm gun with an IMI-OTO 60 mm Hyper Velocity Medium Support (HVMS) gun giving performance comparable to a 90mm weapon. This version was only retired in 1999.

Uruguay continues to use the M24 with new engines and a 76mm gun that can fire armour-piercing, fin stabilised, discarding Sabot (APFSDS) rounds.



ABOVE: Rearview of the M24 as it left the arena. Note the realistically tied back radio aerials
OPPOSITE TOP: Saumur Tank Museum M24 rests in the holding area before going into the arena. The markings are from the French war in Indo China. The rear of the M24 showing realistic stowage
BELOW: French Foreign Legionnaires in Indochina. In the background is an M24 Chaffee light tank. WIKIMEDIA COMMONS

hits. The 75mm shell simply bounced off the Russian tanks' front armour. Understandably M24 crews were reluctant to take on the heavier enemy armour, a task for which the M24 was never designed. When the medium M4A3E8, M26 and the British Centurion tanks became available the M24 could return to its reconnaissance role.

France received M24 tanks in 1950 and used them in their war in Indochina where they were the principal tank fielded by the French forces. Its low ground pressure enabled the M24 to cross marshy ground and rice paddies with ease. The 1er Regiment à Cheval gave the M24 its French nickname 'Bison'. The tanks were used to provide fire support for the infantry, convoy escort, road patrols and static defence of bridges and other important features.

The M24 proved very effective against the Viet Minh causing heavy casualties as they had very few anti-tank weapons except mines and Molotov cocktails. Perhaps the most famous French use of the M24 was when 10 were airlifted, each in 180 component parts, to the garrison at Dien Bien Phu.

After the tanks were reassembled, they acted as mobile artillery batteries firing a total of 15,000 rounds in the defence of the perimeter. When the garrison finally surrendered the crews destroyed them and the shattered hulks still lie on the battlefield to this day. France also deployed some M24s in their war in Algeria where some were converted to

mount an AMX-13 turret.

When the French withdrew, and Vietnam was partitioned the US-supplied M24s to the South Vietnamese armoured cavalry regiments. In their hands, the tanks were not used against the Viet Cong but to support several coups against South Vietnamese leaders leading to another M24 nickname of 'voting machines'.

When the south fell the North Vietnamese captured a few M24s which they used for propaganda purposes.

The Pakistan Army used the M24 in the wars of 1965 and 1971 with India. In both cases, the light tank was outclassed by Indian armour. In 1965 they fell victim to Indian AMX-13 tanks and in 1971 to Russian supplied PT-76 and T-55s and Indian recoilless teams. Both cases proving again that a light tank designed for scouting cannot be used in a stand-up fight with better-armed vehicles or weapons designed to knock out tanks.

M24s have starred in a few war films including *The Bridge at Remagen* and *The Battle of the Bulge*. In films, they have represented M4 Shermans and World War Two German armour.

If longevity of service and multitude of users makes an armoured vehicle a success, then surely the M24 Chaffee is in the top five. If we Classic Military Vehicle enthusiasts could pick a tank to pop down to the supermarket would it not be an M24? ◀

Thanks go to Lt Col Pierre de Garnier de Labareyre of Saumur tank museum for permission to use photographs taken at the museum

Models

If you want to model the M24 in 1/35th scale you are in luck as there are plenty of choices. The 'classic' is the Italeri kit first released in 1986 and subsequently upgraded. Bronco has released an early World War Two US tank, a British Army version, US Korean War, 'Asian' M24 variants and a French M24 in Indochina. Recently the company has announced an M4 Gorilla Motor Howitzer Gun Carriage. AFV Club has released a US army World War Two M24, US Korean War, JGSDF M24, French Indochina M24, British Army M24 and a Norwegian NM-116.

