


The Matilda II on display at the American Heritage Museum was armed with a QF two-pdr gun. A standard two-pdr AP round, could penetrate 38mm of armour, at 1,000yds. A Japanese Chi-Ha tank had 25mm of frontal armour.
CRAIG MOORE

Tank Hunting



The Matilda II on display at the American Heritage Museum was armed with a QF two-pdr gun. CRAIG MOORE

“The two-pdr gun was a peashooter.” “The two-pdr shell just bounced off the front of the Panzer III armour.” “The two-pdr gun was useless. It could not stop a Tiger tank.”

Comments like these are continually made in books, on military history forums, on social media and in the beer tents at military vehicle shows. This is perhaps somewhat unfair as the weapon enjoyed early success in World War Two, as various test showed.

In the mid-1930s, the Royal Ordnance Factories’ design department at Woolwich Arsenal and Vickers-Armstrongs Ltd were working to devise a 40mm anti-tank gun.

The Vickers-Armstrongs Ltd design was successful and officially called Ordnance QF two-pounder Mark IX on Carriage Mark I. The army still used the Royal Navy designation system based on the weight of the shot. This gun’s projectile weight was 2.4lb so the gun was called the two-pounder, abbreviated to two-pdr.

Later, an improved gun carriage designed by Woolwich Arsenal was adopted. It was manufactured by Vickers-Armstrongs Ltd and had the designation Ordnance QF two-pounder Mark IX on Carriage Mark II.

An anti-tank gun was designed to fire at a visible target, in a flat trajectory. This is called direct fire. An artillery howitzer is normally fired over the heads of its own troops and tanks onto a target that cannot be seen by the gun crew using a grid reference on a map.

This is called indirect fire.

British two-pdr-towed anti-tank guns and tanks armed with the two-pdr gun, fighting in France and Belgium in 1940, could knock out advancing Panzer II, Panzer 38(t), Panzer III and Panzer IV German tanks.

The two-pdr was considered obsolete by 1942 as enemy tank designs had up-armoured, but in the early north African

desert campaigns the two-pdr armour-piercing shell could penetrate the armour on every Italian tank. It continued to be used in the far east until the end of the war as Japanese tanks did not have thick armour.

British Cruiser tanks A9, A10 and A15 were all armed with QF two-pdr guns. The Mk.I and Mk.II Crusader tanks and the early Valentine tanks had QF two-pdr guns mounted in their turrets. The Mk.I Churchill tank had a two-pdr gun in the turret and a 3in (76.2mm) howitzer in the hull. The Matilda II tank served throughout the war and was armed with a two-pdr gun in the turret.

Military vehicle researcher Oliver Boyle sent me a wartime firing trial result document. A two-pdr armour piercing AP round could penetrate 49mm of armour at 100 yards, 37mm at 500 yards and 27mm at 1,000 yards.

If a two-pdr armour-piercing capped ballistic cap round was fired it could penetrate 73mm of armour at 100 yards, 65mm at 500 yards and 57mm at 1,000 yards.

It was refreshing to find in the archives, more wartime documents that tell a different story to the modern negative comments. Two come from World War Two South African military records and another two were British War Office reports. During World War Two around 334,000 South Africans volunteered for full-time military service in support of the British fight against Nazi Germany. Many fought in the deserts of North Africa.

1941 South African Army Anti-tank Battery report

The first document is a report contained in the 1941 war diaries of the 2nd Anti-tank Battery, South African Army in North Africa using towed two-pdr guns. Some were put on and fired from the back of lorries. They were given the name Portée: a French word that was shortened to Porte by the army. Information gleaned from historical documents states:

1. The two-pdr gun is effective against ►

The British Ordnance Quick Firing two-pounder anti-tank gun was a potent weapon in the early part of World War Two, but gets very bad press, writes **Craig Moore**

‘Peashooter’



October 1942, two-pdr anti-tank gun mounted on Portée used in field exercises by the 2nd and 4th Australian Divisions. AWM/PD



The two-pdr used in North Africa. AWM/PD



Two-pdr anti-tank gun crew defending the beaches. AWM/PD



Crusader Mk. II, Cruiser Mk. VI, A15 tank in the North African desert July 20, 1942. AWM/PD

a German Mk III and Mk IV tank. On November 23, 1941, two-pdr guns of 2. Anti-tank battery, South African Army, engaged two German tanks, one Mk III and one Mk IV tank, at a range of 600 to 800 yards. Both tanks were put out of action. Round penetrated the turret in each case killing some members of the crew.

Sixteen Mk III tanks were knocked out and set alight by 'N' troop of 2. Anti-tank battery, South African Army on November 24, 1941.

A number of Mk III and Mk IV tanks, which have been disabled and penetrated by two-pdr rounds were examined.

It is the considered opinion that the two-pdr anti-tank gun will disable a Mk IV tank at 1,000 yards and a Mk

(ii) When covering a withdrawal.

(iii) When employed as a mobile reserve for diverging or dealing with tanks which are penetrated within the perimeter of a set anti-tank defence.

But use of the gun was not always effective, as the following paragraphs explain.

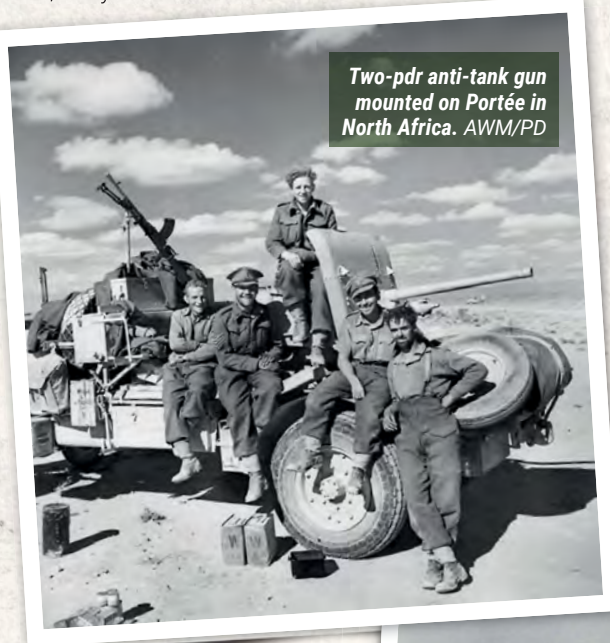
4. Two-pdrs were used in close support of 3 T S in the attack against Point 178 South of Sidi Rezegh on November 23, 1941. A two-pdr troop of the 3. Anti-tank battery, South African Army was moved in bounds 300 yards in rear of the attacking infantry. This troop had a most harassing experience as they were subjected to machine gun and artillery

fire while the attack lasted.

Nothing was achieved by employing two-pdrs in this role.

During a night attack by 1 RMC on November 30, 1941 against Point 175, six anti-tank guns were placed in close support of the battalion as a protection against tanks.

Five tanks attacked the infantry, of these three were destroyed by the anti-tank guns. These tanks were engaged at very close range, one about six yards and the other about 100



Two-pdr anti-tank gun mounted on Portée in North Africa. AWM/PD

III at 1,200 yards.

The report, which makes for interesting reading, goes on to state:

2. When dug in the tank should be allowed to approach to within 800 yards. When used Porte the range at which fire should be opened will depend on the role on which the gun is employed. When covering a withdrawal or when employed in a harassing task, the maximum range should be 1,500 yards. If guns are in a decent hull down position, it will be safe to keep on firing until the tanks have approached to within 600 yards.

Tanks firing on the move are extremely inaccurate, so much so that troop commanders have been so confident, that they have allowed tanks to approach to within 600 yards in the open and have then withdrawn without loss to themselves.

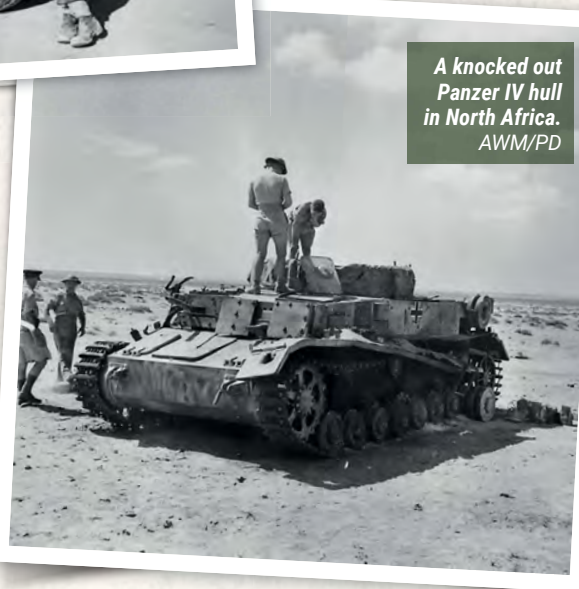
3. Two-pdrs should be used Porte:

(i) Only when attacked on the move.

yards. Open sites we used, the guns being fired from a Porte. The shooting was accurate.

On the latter occasion the guns in close support were a great success as tanks, which are very blind, can be knocked out at night. Moreover, the anti-tank guns were not so exposed as they had been in the daylight attack.

The employment of anti-tank guns in



A knocked out Panzer IV hull in North Africa. AWM/PD

Tank crew of 5 Troop, A Squadron, 2/9 Armoured Regiment, loading two-pdr anti-tank gun shells into a Matilda II tank. AWM/PD



Anti-tank guns were designed to fire at visible targets. AWM/PD



close support of infantry during daylight attack is not recommended. Guns should rather be held back until the objective is gained and then rush forward. The anti-tank command should be given a free hand to move forward as the ground permits.

On June 6, 1941 the 1st South African Divisional Headquarters released a two-pdr gun firing trial report against a Panzer IV.

It was intended to be read by all soldiers, not just the officers. It was important for them to know what the best range to engage enemy armour was to be certain of shell penetration.

It would also act as a reassurance that German and Italian tanks could be stopped. The test involved a two-pdr firing at a German Mk.IV tank from 500, 700 and 1,200 yards.

1. Range 500 yards. Tank engage broadside.

(a) All shots on 20mm turret and hull side armour penetrated, pass completely through tank and penetrated far side.

(b) Under similar conditions, six rounds fired against 40mm band, all penetrated; three broken up inside tank and three penetrated through 20mm armour on far side.

2. Range increase the 700 yards.

(a) Result against 20mm armour as for 1.(a).

(b) result Matt against 40mm armour, all shots penetrated and broke up on far side, after penetrating 10 to 15mm.

3. Range increase to 1,200 yards.

(a) All shots penetrated both 20mm and 40mm armour.

4. Range 500 yards. Tank engaged head-on.

Six rounds fired at thick single and double frontal armour, all penetrated except one.

Conclusions

(a) 500 yards considered about most effective range against thickest frontal armour.

(b) Flank attacks would therefore be more effective and destructive, even at longer ranges.

1941 British Army

intelligence report

On June 4, 1941 the British Army general service Instruction document that was circulated to all army unit headquarters had an appendix attached that had the following title: Tests Carried out with a British Two-Pounder Anti-Tank Gun Against a German Mark IV Tank.

1. The first shots were fired at a range of 500 yards with the target broadside on. All shots on the side of the turret, where the plate is 20mm thick, and on the side of the hull went right through the German tank and came out the far side.

2. Six shots were fired against the 40mm band of armour plate on the centre of the hull. Every one of them penetrated and three also went through the 20mm plate on the far side of the hull. The other three struck the gun or the gun mounting inside the turret and broke up.

The gun crew would almost certainly have been casualties.

3. At 700 yards range, all shots penetrated the 20mm plate on both sides of the hull. They also penetrated the 40mm plate and penetrated to a depth

A two-pdr armed Cruiser tank Mk IV A of a unit of the 1st Royal Tank Regiment near Tobruk, North Africa. AWM/PD



'It was refreshing to find in the archives, more wartime documents that tell a different story to the modern negative comments'



Captured Italian Carro Armato M13/40 medium tanks in Libya, North Africa, July 1941. It only had 30mm frontal armour on the rounded glacis. A two-pdr APCBC round could penetrate that armour at 1,000 yards. AWM/PD



Panzer II captured by British forces. Photographed August 1, 1942 in Egypt. AWM/PD



Knocked out Panzer III tanks at Belhamed, Libya December 16, 1941. AWM/PD



Knocked out Panzer IV tank Egypt. Photographed September 16, 1942. AWM/PD

Knocked out Panzer III tank by Australian two-pdr Anti-tank crew. There is a small penetration hole above the 4th road wheel. Photographed Egypt August 1942. AWM/PD



of 10 to 15mm on the far side of the hull before breaking up.

4. At 1,100 yards range, all shot penetrated both the 20mm and 40mm plates, but did not all go through the far side of the tank.

5. Two tests were made firing at the tank, head-on at a range of 500 yards. Three shots were fired at the thick double plate in front of the auxiliary gunner; all went right through it. Three shots were fired at the thick single plate in front of the driver's seat. Two of these went right through and one just failed to go right through.

6. It will be seen from the above facts that the German Mark IV tank is completely vulnerable, both in front and broadside on, to our two-pounder anti-tank gun.

circulated the 'Experimental report A T 40' about the ballistic properties of armour of the Panzer III. Scientists examined a captured Panzer III tank and then fired two-pdr AP rounds at its armour plates and recorded the following conclusion:

Although the plates when under trial

was not supported as it would be in a tank, we are of the opinion that it is so brittle that even in-situ it would not stand up successfully to two-pdr attack at short ranges or to six-pdr attack at moderate ranges.

Taking the above reports into account, the

QF two-pounder anti-tank gun does not deserve its bad reputation. From the beginning of World War Two to late 1942 it was an effective tank-stopping weapon.

It was replaced by the more powerful six pdr and 17 pdr anti-tank guns as they became available. ◀

'Taking the above reports into account, the QF two-pounder anti-tank gun does not deserve its bad reputation'

Firing trials report on a Panzer III

The British Department of Tank Design



Quick Firing two-pdr anti-tank towed gun on a Mark II Carriage. The gun barrel is of monobloc design and features a percussion fired, semi-automatic vertical sliding breech block. The recoil system uses the hydrospring mechanism. AWM/PD