

# **The Tank Museum**

## **Podcast 2**

### ***The Churchill Tank by David Fletcher***

#### **Introduction**

Hello and welcome to the second in a series of Tank Museum podcasts. In this podcast the Museum's Historian, David Fletcher, talks about the British Churchill - a Second World War tank capable of knocking out the feared German Tiger! He explores its design and development, as well as its combat history. Hear how Churchill tanks were adapted to become Churchill crocodiles with flame throwers attached, find out how this weapon was used by the crew and what they thought of it.

#### **The Churchill Tank**

The tank we are featuring is the very last Churchill ever built and there is a brass plate to that effect bolted onto the turret. As far as we know it came straight to the Tank Museum from Vauxhall Motors and according to legend it has just eleven miles on the clock – one careful owner!

For a tank built in 1945 one has to admit that it looks very dated and it is said, when the Germans recovered some early Churchill's from the beach at Dieppe, following the Canadian raid in August 1942 they imagined that it was some ancient design that the British were happy to throw away. In fact, at that time, it was one of Britain's latest tanks taking part in its first action.

The full story of the Churchill, or Infantry Tank Mark IV, is complicated and made worse because it evolved from something entirely different and was built outside the regular system developed for the production of British tanks. It was promoted by the man after whom it was named, when he became Prime Minister in the summer of 1940, in the immediate aftermath of the Fall of France. Yet it was probably not an ideal design for that time.

If France had taught us anything it was that fast, highly mobile tanks were the most successful; for example the British counter attack at Arras, involving infantry tanks, was of limited success because the tanks were so slow. The Western Desert drove this lesson home.

However the Prime Minister, perhaps with his vivid memories of the First World War, demanded a tank with much heavier armour, which inevitably would also be slower. Early on in the war, before the real fighting began, the authorities believed that the British Army needed something even heavier, which they called a Breakthrough Tank, intended to smash its way through enemy fortifications, in true First World War style. This was soon killed off by

events but not before a number of prototypes had been built including two by the shipbuilders Harland and Wolff in Belfast, which carried the designation A20.

During the development of A20 Vauxhall Motors had become involved and gained some experience of tank design so, after A20 was abandoned and Mr Churchill's new tank agreed upon the contract went to Vauxhall. There was at least one clause in it that must have given the company pause for thought, the new tank had to be ready in one year!

Of course nobody would expect a car manufacturer to design a tank without any help and this was supplied, up to a point, by the Department of Tank Design. Even so it was up to the people at Vauxhall to come up with a design which not only met the Army's requirements but also suited their manufacturing capabilities and processes. And naturally, as far as they could, Vauxhalls copied the design of A20.

They did indeed manage to have a prototype running within a year, and a few more six months later, just when the threat of invasion reduced, following Hitler's attack on Russia. What happened after that is a long, complicated and somewhat sorry story which we can only skip through here. To begin with the new 57mm gun intended for Churchill was not ready so another turret had to be designed to take a smaller gun. Then, when the new gun was ready in 1942 the special welded turret designed for it proved troublesome so a cast one had to be developed. And all the while this was going on there was trouble with the engine, trouble with the gearbox and trouble with the steering system, until it got so bad that Mr Churchill declared that if the tanks could not be made to run they might make good pillboxes!

For a long time there was one party suggesting that the type should be abandoned while Vauxhall themselves, along with other companies that had become involved, did everything they could to improve the tanks. Six were rushed out to the Middle East to join battle at El Alamein but this was not enough to prove anything one way or the other. Yet in the following year three regiments of Churchill's landed in Tunisia and, to everyone's surprise, did extremely well. It was a Churchill that knocked out our Tiger, while others performed feats of hill climbing that surprised everyone, including the Germans.

Meanwhile, back in Britain, Vauxhall Motors had designed a new model, the one we have on show here, which looked like a Churchill but was, in many respects, a completely new tank. Its frontal armour was 152mm thick, which is actually greater than the hull front of the formidable King Tiger and it now carried a 75mm gun. This Churchill was also reliable and able to absorb a tremendous amount of punishment.

The Churchill emerged from the Second World War with a very high reputation, despite its slow speed and vintage looks, but what this really proves is that a tank, any tank, is only ever as good as the men inside it. If

they have confidence in it, and know how to look after it, their tank will serve them well.

Even so it was the end of an era. The British policy to have fast cruiser and slow infantry tanks did not appeal to Field Marshal Montgomery, who was for ever going on about what he called the Universal Tank and from March 1945 onwards, in his view, a tank was a tank and that was it. In practice, however, most armies continued to field both medium and heavy tanks although terms like Cruiser and Infantry were dropped.

Some Churchill tanks were exported after the war and those that remained in British service were mostly relegated to secondary roles such as recovery and engineer tanks, but there was one last moment of glory. In the early stages of the Korean War 7<sup>th</sup> Royal Tank Regiment was instructed to send out its C Squadron, equipped with Crocodile flame-throwers. Not that they ever saw action as such. No sooner had they arrived in Korea than the flame trailers were removed and they were sent into action as gun tanks. And they did very well indeed – despite their age.

The Crocodile flame-thrower was probably the best weapon of its kind to see service in the Second World War. Most armies had tank flame-throwers of one type or another but none so powerful or so terrifying as the Churchill Crocodile. The armoured trailer contained a thickened petroleum fuel and cylinders of compressed air to act as propellant. The trailer was connected to the tank by what was known as The Link; a massive armoured coupling that maintained the flow of flame fuel and propellant no matter how the tank and trailer might twist and turn over rough ground. The actual flame gun was in the front, where the hull machine-gun would normally be, and the flame operator sat alongside the driver. When it fired the flame belched out for around 100 metres and it stuck to what it hit, still burning. The trailer carried about 1,800 litres of fuel which was expelled at the rate of 21 litres per second, so the fuel would be used up in under two minutes. Not that they flamed continuously; the normal practice was to squirt the flame in short bursts as the tank advanced. It was also important to have infantry nearby who understood the Crocodiles and their tactics. It was no good holding back until the flame stopped burning because by then the enemy would have recovered from the shock. Well-trained troops went in as soon as possible to capitalise on the shock effect. But it was not always as easy as that, there were various problems.

To begin with the compressed air leaked, so unless the flame was fired within half an hour of turning on the pressure the cylinders would soon empty. The gunner also had to judge wind direction to get the best range while the driver was always worried about shielding the trailer, which was thinly armoured, with the tank itself. Trailers, in any case, were a blessed nuisance behind tanks. They made driving much more difficult, especially reversing; they got caught on things and if they were hit by enemy fire became most unpleasant indeed. To reduce the risk the driver could detach the trailer using an explosive charge and leave it behind. The tank continued to fight on with its turret gun.

Three Crocodile Regiments served with the British Army in North West Europe and one in Italy. They earned a fearsome reputation where ever they went and one of their last acts was to burn down and sterilise the ground at the infamous Belsen Concentration Camp.

Andrew Wilson, who served with 141 Royal Armoured Corps commanded a Crocodile and recalls his first sight of the new weapon "...there was a continuous hissing and ticking from the trailer – the sort of noise a locomotive makes as it waits to take out its train. The crew shut the trailer door and climbed into the tank. The spectators climbed onto the bank. The Crocodile lay below them, an impatient dragon licking its lips.

There was a little burst of fire, like a struck match, above the nozzle. The tank began to move forward.

It went towards the first target, a concrete pill-box. Suddenly there was a rushing in the air, a vicious hiss. From the front of the tank a burning yellow rod shot out. Out and out it went, up and up, with a noise like the slapping of a thick leather strap. The rod curved and started to drop, throwing off burning particles. It struck the concrete with a violent smack. A dozen yellow fingers leapt out from the point of impact, searching for cracks and apertures. All at once the pill-box was engulfed in fire – belching, twisting red roaring fire. And clouds of queer-smelling, grey black smoke."

### **Epilogue**

Thank you for listening to this Tank Museum podcast. It was presented by David Fletcher who talked about the Churchill tank. Watch the website for more podcasts on our exhibits coming soon.