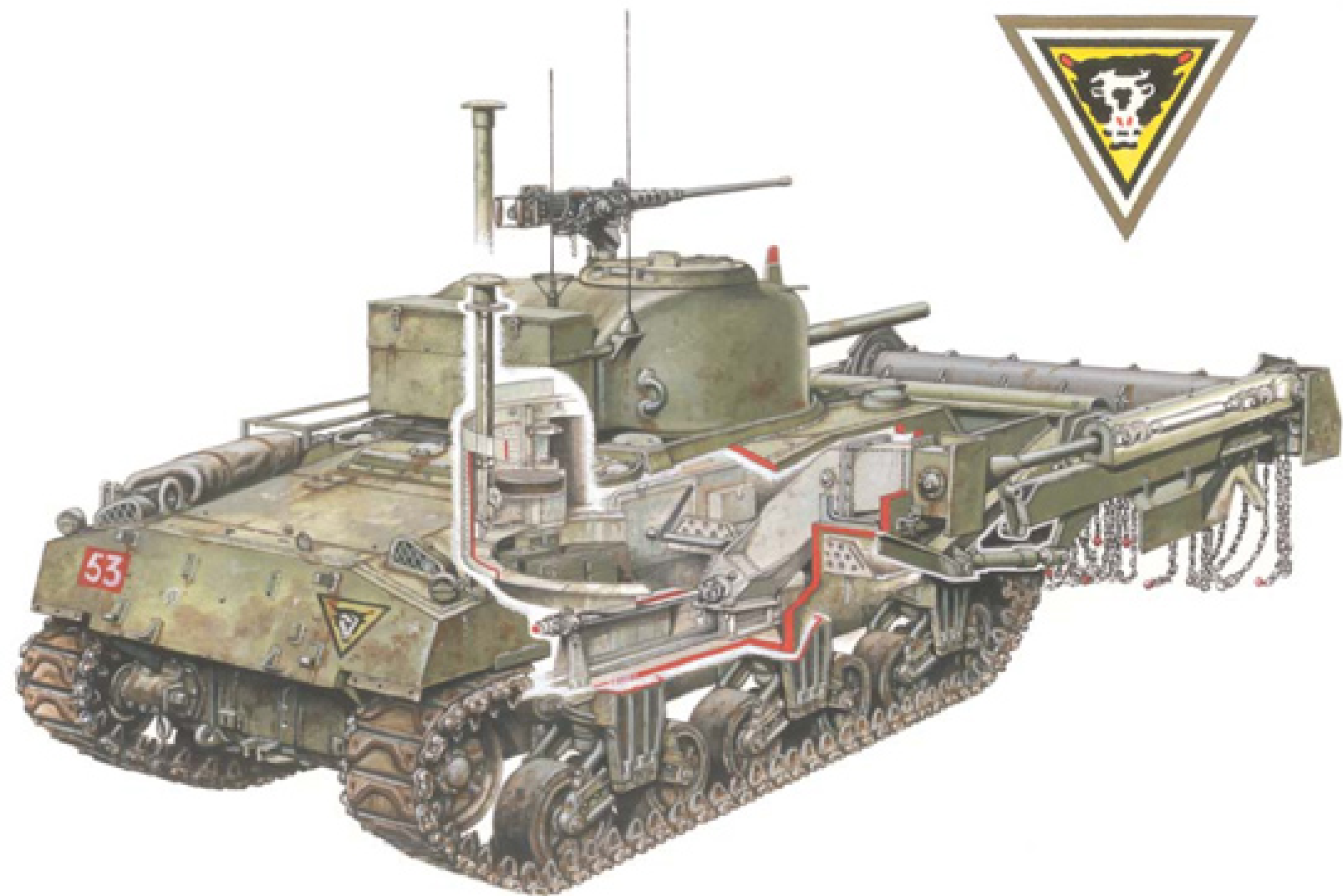


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Sherman Crab Flail Tank



David Fletcher • Illustrated by Tony Bryan

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INTRODUCTION

Most readers will know that the Western Desert is meant to be a 'tactician's paradise', an open expanse in which the gifted commander can exercise his skills to outmanoeuvre his opponent. Even so, this is only true in a limited sense. There are all manner of natural features in the desert that inhibit what a commander can do, and the sensible soldier improves upon these with man-made ones, among which the minefield is the most effective. Well sited, the minefield can turn vast swathes of desert into no-go areas for mobile forces and channel them elsewhere at the dictates of the defender. For the Allied armies operating in the theatre during World War II, some system or machine had to be created to counter the threat of mines.

Born in the desert

When Rommel took Tobruk in June 1942, the British and Allied forces began a massive retreat back over the Egyptian frontier, hoping to reach Cairo and Alexandria before the Germans did. Among them was a British workshop unit (No.4 Ordnance Workshop) that had been based, until this time, at Buq-Buq near the coast, and which had with it a very strange vehicle. Carried in the back of a Canadian Ford lorry was another Ford chassis, shortened

somewhat although still retaining the engine, transmission and rear axle. At each end of the axle, where the wheels might have been, were drums, from which hung lengths of wire rope and chain - it was, in effect, the original anti-mine flail. In action the shortened chassis would be suspended from the front of the regular lorry like a jib, but facing back to front so that the flail drums were at the forward end where they beat the ground to explode mines in the path of the vehicle.



A Crab going all-out. This photograph is presumably a training picture since there are no markings on the tank and no photographer with any sense would stand just here if there was any risk of a mine going off.

The officer responsible for this piece of work was Major Norman Berry, then Assistant Director of Ordnance Stores (ADOS) at HQ XIII Corps. A year earlier, in September 1941, Berry had been ordered to Pretoria to examine a South

African proposal for a mine-sweeping flail device described as a threshing machine. He was introduced to a Captain Abraham du Toit and shown a short colour film of the contraption in action. It appealed to Berry and he suggested that work should begin at once, preferably at a desert workshop where secrecy could be maintained, but this was overruled. Instead du Toit, as the inventor, was to go to Great Britain and pursue his work there. Berry went back to the desert; du Toit departed for London on 14 October 1941 with details of what General Claude Auchinleck described as an Anti-Tank Mine Springing Device.

Berry found this all very frustrating. He was sure the concept could be made to work, but he heard nothing more. He pestered everyone he could find. Visiting officers from Britain, particularly those with a technical background, were his favourite targets, but nobody had so much as heard of du Toit, never mind a threshing machine that would destroy mines. Berry's decision to continue the experimental work unofficially was interrupted by Rommel's latest attack, and when No.4 Workshop arrived in the Alamein area they were simply too busy patching up damaged tanks to do any more with the threshing machine. Rather than write the project off, Berry found a South African unit (21st Field Company, South African Construction Company) with manpower to spare and handed it over to them.



A useful view of a Matilda Scorpion I preparing for action. The commander is in his cupola, one crew member is checking the joints on the wire and chain flails, while the flail operator is in his engine box on the side.

Although the lorry chassis had worked up to a point, Berry believed that a full-width rotating drum would prove a better proposition than narrower ones on each side, and with the injunction that they must use only standard vehicle components, he set a mixed Royal Engineers (RE) and Royal Electrical and Mechanical Engineers (REME) team on the project, for which an A12 Matilda Infantry Tank was delivered early in August 1942.

Little is known of the problems that the engineers faced, but something over a month later the tank flail was completed and, on 13 September, it was recorded as having passed its final test. One trial involved comparison with a Matilda equipped with Fowler Rollers (see New Vanguard 8, *Matilda Infantry Tank 1938-45*) and the flail proved to be so

much better that, in Berry's words, the rollers were 'dropped as being useless in comparison with the Threshing Machine'. It must have impressed others besides Berry, because in mid-September the Eighth Army commander (by now General Montgomery) announced that he required 24 of them in four weeks' time.

The work was to be done by No.7 Base Ordnance Workshops in Alexandria and they would require proper drawings, not the back-of-an-envelope plans that Berry and his men had been working on hitherto. Berry was also on the lookout for a more powerful engine. The original Ford V8 was underpowered, but attempts to find Berry's preferred choice, a V-12 Lincoln Zephyr, were not successful. The code name 'Scorpion' was adopted when the original choice of 'Durban' was rejected.

If the task of getting the work done on the 24 Matilda tanks was difficult in the time allowed, it was no easier finding crews for them. Two battle-worn regiments, 42nd and 44th Royal Tank Regiments, were combed for crews with Matilda experience, while the RE was to supply the flail operators. This latter position was no sinecure. It meant occupying a cramped position within a box on the right side of the tank, which also contained the flail engine, radiator and drive system. Despite the fact that at least one Sapper NCO described it as preferable to finding and lifting mines by hand under fire, that is not saying very much. Not only was there more noise and heat than the average man could bear, it was also found necessary to wear a gas mask during flailing operations in order to filter out the dust.

Having acquired the tanks, or at least most of them, just in time, and General Montgomery's enthusiasm notwithstanding, it was still not easy to sell the concept to some corps and divisional commanders. Many feared that as experimental devices on old and unreliable vehicles, the flail tanks were likely to break down and block such routes as they had cleared. It was not an unqualified judgement; pre-

battle demonstrations had been blighted by failures. However, to the south 7th Armoured Division welcomed them. Perhaps it was due to the fact that they were eager to pass through a minefield in order to get at their old adversaries, 21st Panzer Division.



A Matilda Scorpion II heading west on a transporter. The flail apparatus is camouflaged, but the nearside arm can be seen, along with the engine box on the far side.