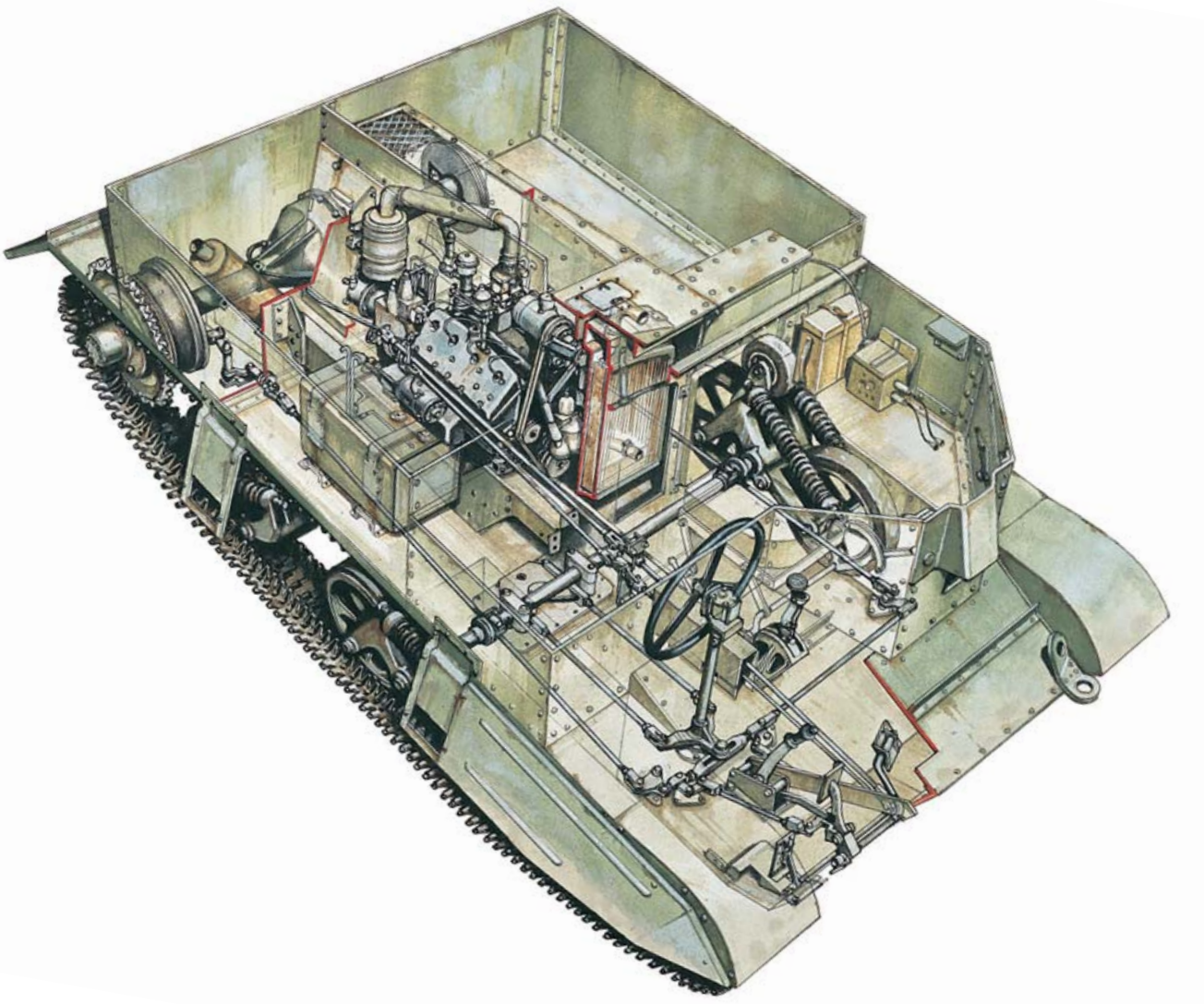
New Vanguard

OSPREY PUBLISHING

Universal Carrier 1936–48

The 'Bren Gun Carrier' Story



David Fletcher • Illustrated by Tony Bryan

New Vanguard • 110

Universal Carrier 1936–48

The 'Bren Gun Carrier' Story

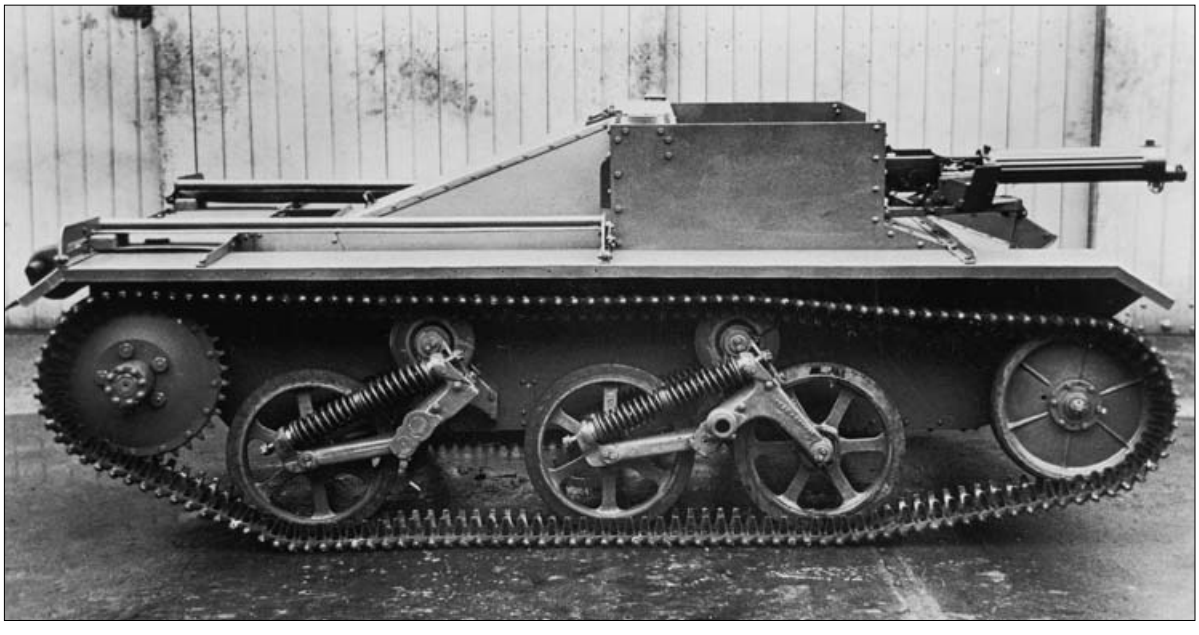
David Fletcher • Illustrated by Tony Bryan

UNIVERSAL CARRIER 1936–48 THE 'BREN GUN CARRIER' STORY

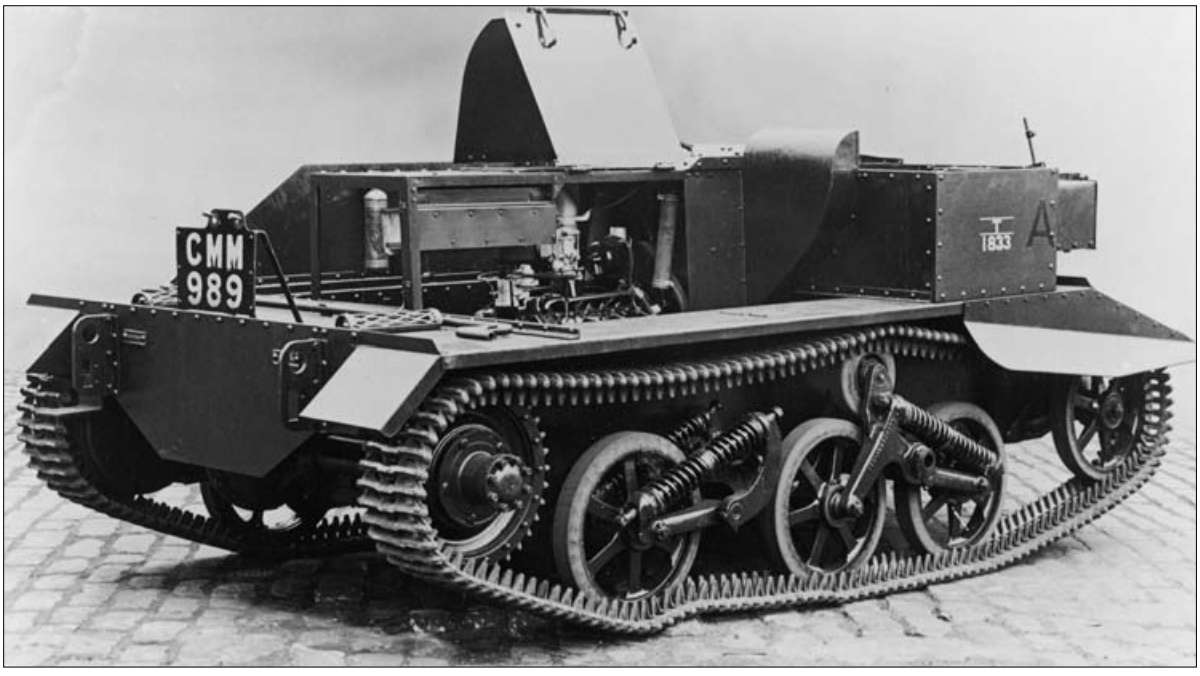
INTRODUCTION

The Universal Carrier is typically British – peculiarly British some might say: a compromise, neither one thing nor the other. Designed for a role that it never really fulfilled, it was adapted to dozens of others for which it was never entirely suited and was still in service, in vast numbers, long after it should have been pensioned off. Granted, it was also copied by the Australian, New Zealand and Canadian armies, but presumably on the assumption that the British knew what they were doing in the first place. It saw service all over the world, with just about every army that took part in the Second World War and some that did not. It is regarded with sentimental affection by those who used it and yet it is still referred to by everyone, quite incorrectly, as the Bren Gun Carrier.

Tracked carriers were nothing new – a simple version had appeared towards the end of the Great War – but the origins of the Universal Carrier may be traced to the Ford T-powered Carden-Loyd machines of the mid-twenties, and specifically the definitive Mark VI model of 1927. When the Carden-Loyd Company was taken over by Vickers-Armstrongs in 1928 the tiny machine-gun carrier became a major component of the British Army and a considerable export success. Yet for all that it was cramped, vulnerable and unreliable with just the one merit – it was cheap.



Prototype carrier VAD50 in its original form with the coil spring on the leading bogie sloping backwards. Like the earlier Carden-Loyds, this prototype carrier had left-hand drive and a machine gun elevated by the gunner's feet. The backrests on the track guards are folded down.



Machine Gun Carrier No. 1 Mark I viewed from the rear with the engine panels raised to reveal the Ford V8. The rear compartment is wide open on this side but enclosed by a vertical panel on the other. T1833 (numbered as a Tank in the War Office system then in use) was later converted to become the prototype Mortar Carrier.

Other lines of development, stemming from the Carden-Loyd, were a family of light tanks and a range of artillery tractors known as Dragons, which, on account of their greater weight, required bigger engines and a more substantial and flexible suspension system devised by the Horstman company. Most Dragons employed a Meadows six-cylinder petrol engine and in addition to their use by the British Army they enjoyed considerable success on the export market. However, they were expensive, specialized machines, and in an effort to produce something cheaper Vickers-Armstrongs launched an interesting new vehicle with the development number D50, in 1934.

Vickers-Armstrongs D50

The vehicle was delivered to the Mechanisation Experimental Establishment (MEE) at Farnborough and tested in 1935. Outwardly it did not look very exciting. The body was limited to a two-man compartment at the front, while narrow seats, running lengthways along the track guards at the rear, would accommodate the rest of the crew. Mechanically it was equally simple. The engine, located centrally in the body, was the standard commercial Ford V-8 linked by a four-speed and reverse gearbox, also by Ford, to the same company's standard truck rear axle at the back. The suspension was similar to that used on contemporary Light Dragons, the so-called Horstman slow-motion system that Vickers referred to as their 'double spring' type; however, in this case it amounted to just one and a half bogies per side. What made the design outstanding was the steering system.

One problem that had plagued the Carden-Loyds, and the Dragons, was a phenomenon known as reverse steering. This could result in a vehicle that was travelling downhill actually turning the opposite way from that intended, sometimes with disastrous results. It was a common failing with clutch and brake steering, although experienced drivers

could use it to their advantage. The new system, which was probably the brainchild of Sir John Carden, Vickers' chief AFV designer, and of his deputy Leslie Little, was ingenious and relatively foolproof. It was so arranged that the foremost suspension units on each side shared a common axle, a strong tubular shaft that ran across the floor of the vehicle and was capable of sliding sideways to a limited extent. Activated by a steering wheel, it had the effect of displacing both bogies sideways, bending the tracks and causing the vehicle to steer, without braking or skidding, for large radius turns. Skid steering could be brought into play for tighter turns by giving a harder twist to the steering wheel; this applied a brake to one side of the differential or the other and so, since no clutch was involved, there was no risk of reverse steering.

Another advantage sometimes put forward for this system was that, by offsetting the suspension to some extent, it would allow the vehicle to run straight along a cambered road without continually trying to work its way into the gutter. The suspension system also gave a good ride across country, while the short pitch, manganese-iron tracks were hard-wearing and free-running at speed. MEE tested D50 as a light artillery tractor and a carrier for the Vickers machine gun. In the former role it evolved into the Dragon, Light, Mark III, which does not concern us here, and in the latter into an experimental machine-gun carrier, which does. The original D50 vehicle was never purchased for military service. Its suspension was subsequently modified and, later still, it appeared in an exotic camouflage scheme, mounting a Vickers 40mm anti-tank/anti-aircraft gun and offered for export.

THE MACHINE GUN CARRIERS

Within a year Vickers-Armstrongs supplied a second vehicle, this time to a War Office contract, which was referred to as an Experimental

Not all of the Machine Gun Carriers No. 2 Mark II were rebuilt as Bren Gun Carriers when the war began. Here T2600, an early Thornycroft-built example, still features a Vickers gun in the enlarged gunner's compartment as it leads a column of carriers through Amesbury, Wiltshire. The markings suggest that they are playing the part of enemy vehicles in an exercise.