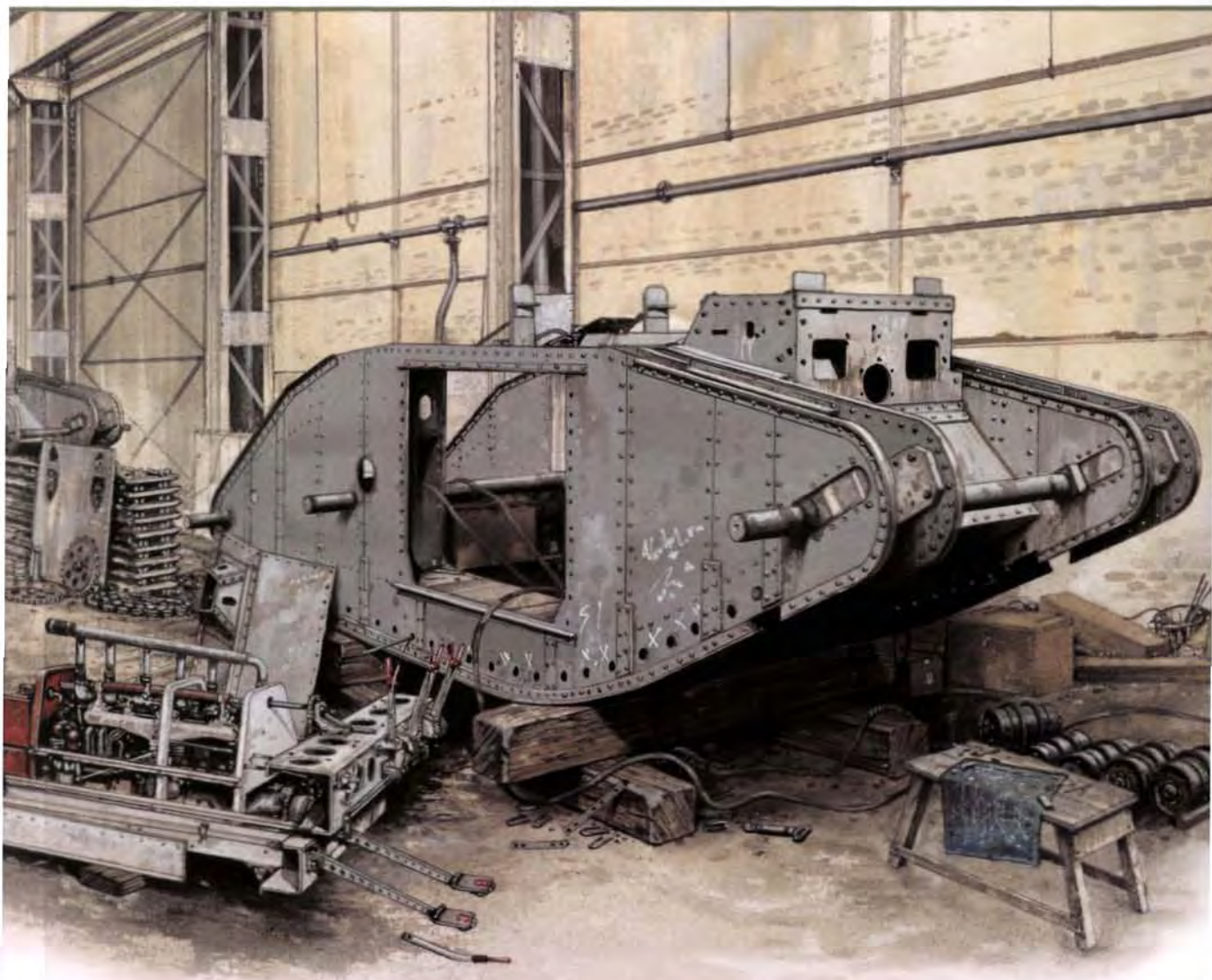


New Vanguard

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British Mark IV Tank



David Fletcher • Illustrated by Tony Bryan

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CONTENTS

THE FIRST MAIN BATTLE TANK	3
• Haig's order	
• The numbers game	
THE MARK IV DESCRIBED	6
• Weapons and sponsons	
• Building the tanks	
THE TANK CORPS EXPANDS	12
INTO BATTLE	14
• In Flanders field	
• Operation <i>Hush</i>	
• With the Egyptian Expeditionary Force	
• The battle of Cambrai	
MECHANICAL IMPROVEMENTS	33
• More power	
1918 – THE FINAL BATTLES	37
POST-WAR	40
COLOUR PLATE COMMENTARY	44
INDEX	48

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BRITISH MARK IV TANK

THE FIRST MAIN BATTLE TANK

The Mark IV could probably be described as the first Main Battle Tank. Some 1,200 were built and they participated in virtually every British battle on the Western Front from the early summer of 1917 until the very end of the war, plus one action in the Middle East. Apart from its mass production, the Mark IV was also the first tank to be built based upon experience with earlier tanks and the first to be used en masse in combat, in a battle actually planned around the tank. Even so, it could have been a far better machine had it not been for a serious clash of personalities.

The Mark IV was based, mechanically, on the prototype tank *Mother*, which in an ideal world should have been improved upon by 1917. The problem was the eternal conflict between the ideal and the expedient. Everyone agreed that the four-man driving system, introduced with *Mother* in 1915, was tiresome and inefficient, but what to do about it? Lt Walter Wilson knew the answer, but Maj Albert Stern, head of the Mechanical Warfare Department, overruled him. Lacking technical acumen, and unable to see the brilliant simplicity of Wilson's scheme, Stern ordered this first production tank to use the same system as *Mother*, while experiments were carried out to find the most effective form of transmission. The matter was decided in favour of Wilson's design in competitive trials at Oldbury in March 1917, but that was too late to influence the Mark IV. Stern had unwittingly managed to delay the improvement of British tanks by a good 18 months.

King George V and BrigGen Hugh Elles watch two new Mark IV tanks on a steeplechase course at Neuve Eglise in July 1917, the month that the Tank Corps came into being. The event provides a fine comparison between male and female models.





The tank testing ground at Oldbury, near Birmingham, with a brand new Mark IV female ticking over. The Royal Naval Air Service petty officer stowing fuel cans belongs to 20 Squadron, which remained responsible for tank testing until the end of the war.

Haig's order

Readers of our title on the Mark I tank (Osprey New Vanguard 100) will recall that, immediately after the very first tank attack in September 1916, General Haig placed an order for 1,000 more. These would appear in due course as the Mark IV. Meanwhile the surviving Mark Is would have to soldier on. They were supplemented by small production runs of Mark II and Mark III machines, which would be required to train the new army of tank crews to be raised for the Mark IV. It is difficult, today, to appreciate the implications of Haig's order. British manufacturing industries were already groaning under the strain of war. The great shell scandal that could have brought the British Army to its knees in 1915 was only slowly being overcome, now that dozens more firms had taken up the work. The British railway system was nearly falling apart as it struggled to meet increased demand and the shipbuilding industry was working to full capacity, endeavouring to produce more warships and replace merchant vessels lost through enemy action. On top of these conditions there was an increasing demand for aircraft, transport vehicles, rifles, grenades, mortars and all the other materiel of war.

The numbers game

Production of Mark IV tanks got underway in March 1917 as soon as the last Mark II and Mark III machines were finished. Deliveries were soon running at about 20 tanks per week, although it was hoped that double this number would be produced. Not everything was running smoothly. Considerable confusion followed the placing of the 1,000-tank order and it was not settled until the Prime Minister intervened, at which point the War Office took a more optimistic view and authorized what amounted to an open-ended order. At one stage the total number of Mark IV tanks on order was 1,400. Ordering like this was a risky business. It should have been a foregone conclusion that improved designs would appear, indeed the Oldbury Trials had only recently guaranteed this. So orders assuming that the present type would be manufactured for an infinite future threatened to clog existing production facilities, probably at a critical time.

The initial confusion over quantities is reflected in a good deal of uncertainty over individual orders as to who got what and how many tanks each firm would actually build. Overall, out of the total of 1,400 the following is believed to be an accurate breakdown:

Cancelled	180
Fighting tanks	950
Supply tanks	205
Experimentals	11
Surplus	54

Therefore, of the 1,220 Mark IVs actually built 1,155 were available for combat or training, if one includes the supply tanks. As we shall see, far more Mark IV tanks were ultimately used for experimental purposes than those shown here, and were presumably earmarked for this role from the outset. Whether the others were adapted from redundant service tanks or the surplus stock is not clear. Other figures suggest that of the 1,015 fighting, experimental and surplus tanks – that is excluding supply tanks – 420 were completed as male machines and 595 as female.

Since it was fair to assume that any firm not engaged upon war work by 1916 was not much good, the only answer to increased production was to spread the work around amongst those that were good. The main contractor would still be the Metropolitan Carriage, Wagon & Finance Company of Birmingham, and Fosters of Lincoln would take its share, but other firms were brought in, notably Beardmores, the Coventry Ordnance Works and Mirrlees Watson in Glasgow, plus Armstrong-Whitworth in Newcastle-upon-Tyne. Sub-contractors would also be drawn in: the Daimler Motor Company, understandably, for engines, gearboxes and differentials, and others like the Glasgow firms Hurst, Nelson Ltd and John Brown & Company, which assembled tank hulls for parent contractors.

Haig's great hope was to have enough new tanks available for a proposed offensive in the spring of 1917, but for a variety of reasons there were delays that combined to frustrate this plan. Raw materials were in short supply, new contractors had to be educated and there were numerous design changes to be worked out and incorporated, although some had been foreshadowed in the Mark II and III.



A Mark IV female fitted with a portable tank crane lifts heavy items onto light railway wagons, probably at the depot in France. The jib is secured to the back of the cab and employs a manual chain hoist.