

Char B1 bis

History: The Char B1 was almost certainly the most capable tank in the inventory of any army at the beginning of World War II. However, the history of its development and the way in which it was deployed meant that capability had little effect on the outcome of the Battle of France in May and June 1940.

Development of the Char B began during World War I with the need for a heavy battle tank carrying a heavy armament across enemy ditches and trenches. Planning for this tank went in various directions including the Char A, Char 1A, Char 2C, the Char D and the Char B which also went through a number of stages in development. The Char B began development under the code designation 'Tractor 30' and three pilot models were built by Renault and FCM in 1929-30. Significant tank development halted in France in 1930 because Peace Conferences designated tanks as offensive weapons and so France limited its tanks to infantry support, and also because the depression reduced military expenditure.

Production of the improved Char B1 began in 1935 but only a small number were built before production swapped the Char B1 bis. Production was shared between six companies; Renault (182), AMX (47), FCM (72), FAMH (70) and Schneider (32). It was a very expensive tank with a unit cost of about 1.5 million Franks. The Char B1's complexity made it difficult and expensive to manufacture, one example was the transmission that had to be very precise so the driver could aim the hull mounted 75mm gun. It was also expensive and difficult to operate because its powerful engine had a high fuel consumption so operational Char B1s had to be accompanied by refuelling tankers and crews. The crew could also get to the engines to maintain them during operations and some of the maintenance team often travelled in the tank to do that.

The shape of the Char B1 hinted at its old fashioned design philosophy. However, throughout its development compromises were made in an attempt to keep it up to date. It was one of the few French tanks to be equipped with a radio but right up until the beginning of World War II it was capable of only morse code communication, necessitating a dedicated radio operator. (Even when voice communication was provided engine noise made it difficult to hear conversation so some companies kept their morse-



code sets). Its turret was fitted with a 47mm gun capable of penetrating the armour of German tanks but it was in the commander's turret so he also had to load, aim and fire the gun. The 75mm gun loader also had to make the fine aiming adjustments on that gun and fire it and hand 47mm rounds up to the commander in his turret. The complexity and mixed nature of all these functions made it very difficult to train proficient crews and for them to work efficiently under pressure. On the other hand the Char B1s front and side armour was invulnerable to all German anti-tank guns except the 88mm Flak 18. Its most vulnerable point was the cooling grill on its port side and there were reports from 37mm anti-tank gunners that they had knocked out Char

Bs by firing at the engine grill from almost point blank range.

Despite its significant advantages two main things prevented the Char B1s from having a significant impact on the Battle of France. One was the way it was used in battle, usually in small numbers so they could be overwhelmed by German forces. Even when they were able to destroy numbers of German tanks they lacked the infantry and artillery support necessary to exploit the situation. The other was that it was never available in large numbers. In the period between the declaration of war and the German invasion no more than 15 Char B1s could be produced a month so there were only about 300 Char B1s and Char B1 bis' available for service on 10 May 1940.

After the German victory many Char B1s were pressed into service in a number of roles. Some were used in occupation duties (PzKpfw B1bis 740(f)), some had their armament removed and were used to train tank drivers (PzKpfw B1 (f)), 25 had their 75mm guns replaced by flamethrowers (PzKpfw B1 (f) Flamm) and several were converted to mount 105mm howitzers (10,5cm le FH 18 Ausf Gw B2 (f)).

Data: *Engine* one Renault six cylinder liquid cooled engine of 307hp. *Hull width* 2.5m (8.2ft). *Hull length* 6.37m (20.90ft). *Height* 2.79m (9.15ft). *Combat weight* 31,500kg (69,457lb). *Maximum speed* 28km/h (17.39mph). *Maximum range* 150km (93.15 miles). *Armament* 47mm gun, 75mm gun and 7.5mm machine gun. *Crew* 4.

The kit: Matchbox 1:76

Some of us are old enough to remember when Matchbox began issuing tank kits, at the time there were only Airfix and a few Hasegawa and Nitto tanks in this small scale. To make Matchbox's entry into the market more enjoyable, they released unusual kits like the Sherman Firefly and the Comet and, to top it all off, the dual set of Char B and Renault FT-17. Strangely enough, I don't recall ever completing a Char B kit until now, something like 30 years later. I was only able to make this kit thanks to Zim's generosity because I haven't seen one in the shops for years. A quick peek on the www suggests that Revell have the moulds these days but I haven't seen a Char B in their boxes either.

Matchbox kits were generally simple in layout but detailed enough to make them interesting looking in this small scale. There is absolutely nothing complex about this kit, the most difficult part is lining up the drive shafts and the hull gun when you're assembling the hull sides, but that was only fiddly enough to annoy me for five minutes. After that, the only really difficult part was painting on the camouflage colours that requires a fine paint brush and a steady hand.

The little model of the Renault FT-17 is equally simple and only the painting takes more than minimal concentration. You get the option of turret guns, either the 8mm Hotchkiss machine gun or the 35mm cannon and since I've already made the PRM 1/72 kit in its Char Canon version I used the Hotchkiss gun this time (It is interesting to sit the Matchbox 1/76 model alongside the RPM 1/72 model because there is a slight but noticeable difference in size.)

The kit offers three options of decals for the Char B1 and two for the Renault FT-17. The ochre, green and brown colour schemes give the Char B1 character and the end result is an attractive little model of what should have been a much better tank than it was.

