

Battalion Bits BT16: Charioteer Conversion 1/48

Background

In the late 40s, the Royal Armoured Corps noted that the 75mm gun of the Cromwell was incapable of penetrating any current Russian tanks, and while the new Centurion would be more potent, its entry into service was delayed. A tank destroyer could be made relatively quickly by modifying Cromwell hulls and fitting them with a 20 pdr gun in a rotating (and lightly armoured) turret. FV4101 was ordered in 1951 as the Charioteer, and by 1953-54, 440 had been produced (serials 00ZW01 to 04ZW42).

They were based on late series Cromwell tanks with F type hull (two side opening hatches) and the major structural change was the addition of a larger turret ring as a bolt-on modification. This ring appears to be centred about 4 inches further aft than the original turret ring but this cannot be confirmed from drawings. The turret for all its height and size only housed two crew; the commander who doubled as gunner, and the loader who doubled as radio operator, the large 20 pdr gun (and 0.30" co-axial mg) taking up most of the internal space.

The Charioteer did not long serve long past the mid-50s in British service, but a number were sold to Austria, Finland, Lebanon and Jordan, where some continued in service until the seventies.

Getting started

Like all resin kits, remove the parts from their bases / sprues and wash thoroughly to remove any release agents. This kit requires the Tamiya 32528 Cromwell Mk IV as a base kit.

A word about tracks

Charioteers were all fitted with 15.5" wide tracks compared to 14" for the Cromwell. In 1/48 scale, the difference is 0.032" or 0.75mm. If this discrepancy bothers you, I would suggest you substitute the tracks from a Tamiya Pz IV which are almost identical in width (15.7") and actually represent the later tracks a bit better. The pitch is slightly greater which means they will not fit the Cromwell drive sprockets but the teeth can be removed in the area where the track bends around the sprocket. I have used these and although you need to use the spare track sections (put them on the bottom where their lack of tread detail will not be apparent) there are just enough links to fit your Charioteer.

Assembly

Step 1 (refers to Tamiya Cromwell instructions): Replace kit part A6 with resin Idler Wheel. The resin Idler Hub then fits in the centre hole of the new idler.

Step 2: Remove the mounting pads for parts A1 and C6, and fill any holes. Glue

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on the resin exhaust pipes, centred 0.2" down from the top of part B10 and 0.4" out from the midpoint. Save C6 for later installation, which will fit into resin Leaf spring.

Step 3: As per kit instructions with modified idlers. At this stage, it is best to address a minor fit problem with the Tamiya kit (and this resin set as well). The Tamiya Cromwell upper hull is very slightly too short, and fits the chassis better if you file the ends of the white metal chassis a bit to tighten up the fit of the plastic Rear Panel and front plate B6. This will involve a bit of try and fit cycles, but will be worthwhile at Step 5.

Step 4: As per kit instructions, or use Pz IV tracks. I suggest you manually straighten the top run which has moulded-in sag, and use it on top.

Step 5: If you still have a bit of a mis-match after Step 3, slightly lengthen the mounting slots, and mount the hull back as far as possible. You will end up with a slight gap at the front of the glacis plate which can be easily filled with a length of strip. This is much easier and less noticeable than trying to fill the gap at the rear.

Step 6: Not required. The hull mg was not fitted.

Step 7: Parts A2, A28 not required.

Step 8: Not required.

Step 9: Part A2, B1 and storage boxes not required.

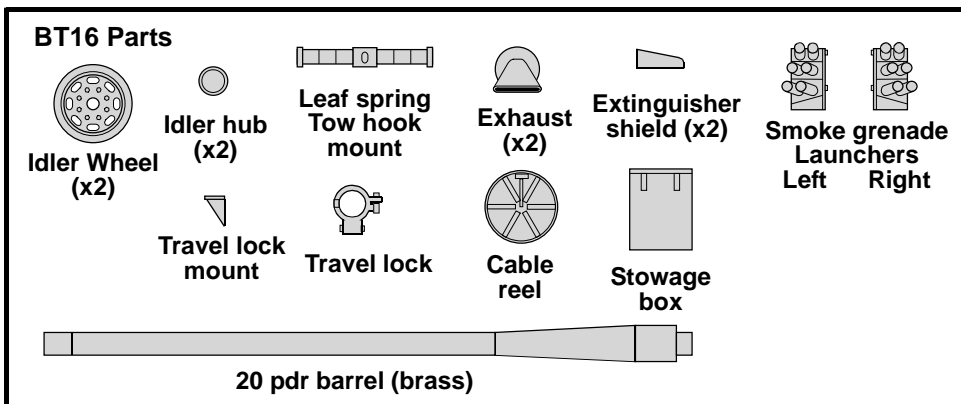
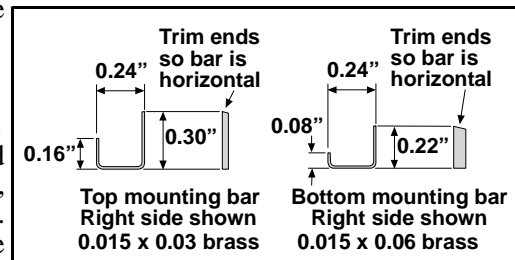
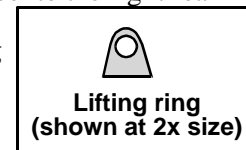
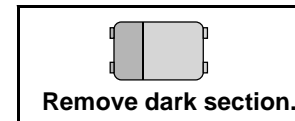
Step 10: Storage box not required. Part B16 needs to be modified to fit the shortened screw access hatch; see sketch at right. Fill the seam all around this hatch.

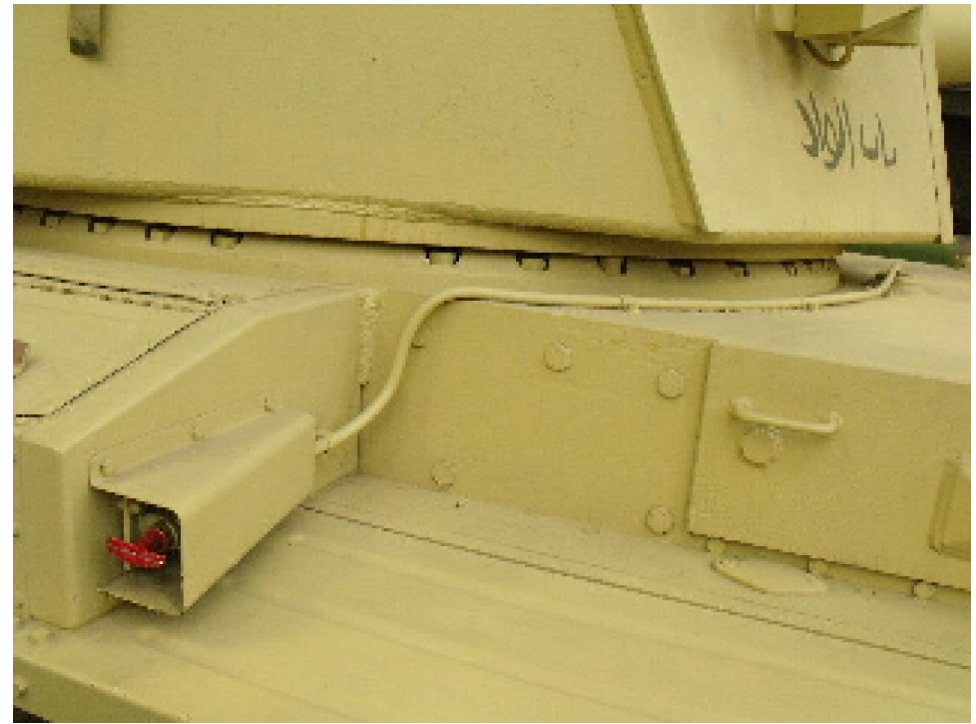
Steps 11-16: Not required. Instead, use the resin turret provided. Glue on the resin Stowage box to the left rear plate. Glue on the resin Cable reel to the right rear plate, centred on the round disc cast into that area.

Make up 4 lifting ring plates from 0.030" plastic sheet, using the sketch at right as a guide (shown 2 x full size; these are small!) Glue these onto the vertical bars cast into the top of the turret forward and side plates.

Make the mounting bars for the smoke grenade launchers using the sketches at right. Prepare for some cut and fit. The lower bars glue onto the points cast into the forward plates. The idea is that the bars end up horizontal, and the sides are parallel to the centrelines, so the grenade launchers face forward. Use the photos printed on the next page as a guide.

Glue the gun barrel into the turret front plate. Early Charioteers had a gun muzzle counterweight fitted. Use the two lengths of plastic tube provided to construct this.





Above, see the exhaust and leaf spring tow mounting position.
Below, see the location where the travel lock is welded to the left rear corner of the hull. Note that it ends up being at a slight angle to the hull, so that the travel lock when fitted is aligned with the gun tube.

