

NEW RELEASE: 7mm Cudworth Dover Mail 2-2-2 locomotive

SER-Kits, 20 Weald Close, Weald, Sevenoaks, Kent TN14 6QH

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Cudworth's 2-2-2 Single was designed to handle heavy loads at high speeds from London to Dover and lasted until 1892. This model should appeal both to south of England enthusiasts and to those who like building old and unusual locomotives.

The kit contains N/S and brass etches, LMA and brass castings. It will make all known variations with their different chimneys, domes and buffers, and with or without Smith's vacuum brake. Lining transfers are in preparation.

The kit-built prototype handles 30 axles on gradients of 1 in 40 and 4ft radius curves, and carriages and vans are available from the SER-Kits range to build the 1865 train that Charles Dickens nearly died in.

The kit retails at £270, and as a introductory offer to the first 12 purchasers will include a free 48-page booklet of photos and drawings giving the complete history of the Dover Mails. Detailed specifications and order form on following pages. Instructions can be downloaded after 1 Jan 2014 free from the website for modellers who like to know what's involved in construction.



SER-Kits Dover Mail 2-2-2 further info

Prototype variants

The kit should make any known variation of the Mails with little or no compromise. However, for simplicity, it is sold in two versions: early Vulcan locos (including No.199 which pulled the Charles Dickens accident train) and the later Ashford variant fitted with vacuum brake. Modellers wanting to make other variants can purchase additional parts from SER-Kits or swap existing parts for a small handling and postage charge. Before cutting the etch you need to decide which version you wish to build and at what date so read the historical info.

KIT DESIGN

Sub-assemblies

The kit is designed to be built with various sub-assemblies to make painting and lining possible, for example behind the springs. After completion, the whole loco body can be removed from the chassis as you would expect. To strip down the sub-assemblies will probably require removing various rods and tiny fittings.

Brass and copper fittings

The kit is sold with a mix of solid brass fittings, brass-plated low-melt castings and – Vulcan and Kitson - a copper chimney top.

Frames, wheels and clearances

- Scale 7: separate 27mm wide internal spacers are provided. The GAs which I have had access to are ambiguous as to the exact width.
- The driving wheel cover (splasher) is an arc of slightly larger radius than the prototype, arranged so that the top is at the correct height. The result is that the splasher is wider at the footplate to help remove the likelihood of the wheel flange touching the inside. On the original the clearance is only around 3/4in. (0.4mm), and on a model electrical shorting would be likely to occur. Few, I think, will ever notice the compromise.
- Leading and trailing loco wheels are sprung. Experience shows that the driving wheels are best left unsprung. The tender wheels can be sprung or compensated with the parts included.
- Most trailing wheels were probably 4ft diameter. However, the clearance between tread and footplate is less than 2in (1.2mm), so to accommodate the overscale flanges of Finescale the etch has rectangular holes where fouling could occur. These are covered with small pieces of etch, and with the footboards.
- Ordering Wheels from Slaters:
 - **Leading:** Locos Nos 27 & 116 for which no evidence of spoke number, could try 4ft 6in 14-spoke 7853LB; all other locos, 4ft 10in 16-spoke 7858LB (special addition to Slaters' range).
 - **Driving 7ft:** 24-spoke Slaters 7884CR
 - **Trailing:** 3ft 9in/4ft 12-spoke Slaters 7845E or 12-spoke 7848

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- **Tender 4ft:** For outside bearings use 7848MF but order six top-hat (wagon) bearings at the same time. Alternatively, use 12 spoke 7848 with non-prototype inner bearings. These alternatives are discussed at the start of the Tender instructions.

Motor

The long and deep Cudworth firebox gives a lot of room, especially if a gearbox is used which lifts the motor above the axle. I've used an ABCMini-S gearbox with an 1833 motor but there's no reason not to use a cheaper worm and wheel box if finance is a problem. There's room for a flywheel but to get the loco to pull loads up my gradients I did without and filled the space with lead. The loco is so heavy that – with the spur gearbox – it freewheels quite happily. You need a controller that can give slow running. If yours packs an initial punch it may trigger wheelspin.

DCC

There's plenty of room in the deep firebox for the decoder. There is plenty of room in the tender for a large rectangular loudspeaker, with holes in the base and chassis for the sound to get out.

Other Details

- Outer frames are laminated to recreate the double plates of the original.
- The smokebox, boiler and firebox are resin castings to avoid the need for rolling. The brass cladding rings are a push fit between them, and the whole assembly can be removed either as one or as separate units for painting.
- Parts for dummy motion are provided as etches and castings. It's fairly visible under the boiler, but you may choose to omit it.
- The 'Ashford' kit contains stovepipe chimney and parts for Smith's vacuum ejector and pipes, Stirling brake blocks and linkage which was fitted in the 1880s for safety reasons.

Construction methods

- The main etch is in nickel silver with a separate brass etch for certain parts. Parts are slotted and tabbed for ease of soldering
- All my kits use high-quality Low Melt Alloys rather than white metal. LMAs can be bent within reason, usually several times, before the casting will snap.
- Many of the fittings are located with supplied pins before soldering or glueing.

ORDER DETAILS

**SER-Kits,
20 Weald Close,
Weald,
Sevenoaks,
Kent TN14 6QH**

The Dover Mail kit is to order only, except that I have one in stock (Feb.2017) with a slightly shop-soiled but perfectly usable etch. This can be purchased straight away at a discount of £30.

For new orders, a deposit of £50 is required in advance but this will not be cashed until the order is ready for despatch, when I will notify customers and **the balance of £230 will be payable, + £12 insured UK P&P.** Overseas orders will be posted, tracked and insured at cost. For Australia this has been around £20 for previous loco kits. Kits can be collected, provided an appointment is made in advance.

Please make cheques payable to D. Garrett.

While stocks last, customers sending a deposit will receive a free 48-page A4 booklet containing all currently known photos of the Mail locos, 6 full page CAD drawings, full painting and lining instructions, and a 4-page illustrated supplement on the Staplehurst Crash of 1865 (the train that Dickens nearly died in).

When you have read the booklet, please let me know which version of the loco you wish to build so that I can include the correct castings and fittings.

The kit will be sold in two versions: the original condition Vulcan/Kitson version as seen in the accompanying photos and the Ashford version of the 1880s with stovepipe chimney and Smith's vacuum brakes. Later modifications led to 'hybrid' versions, to be seen in photos, and these can be catered for at a small extra charge to cover correspondence and re-packing of castings.

Artwork for lining transfers is being prepared and customers should check for availability. I cannot at this stage give a price, but I estimate it will be in the region of £25-30 for a sheet which will contain the various thicknesses of black and white lines in the necessary lengths, plus the 52 corner scallops (yes, 52!) needed to fully line the Mail.

Dan Garrett