

TIMEPIECE DVD Review

Tim Treffry reviews this important DVD which celebrates the completion of a working replica of Harrison's H4

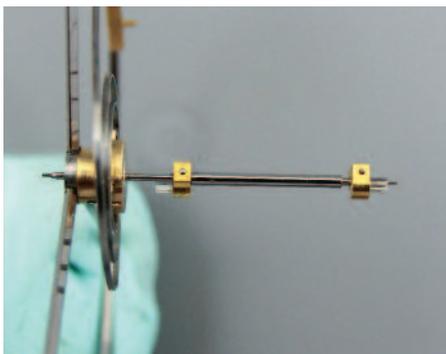
A Detailed Study of H4

Derek Pratt FBHI and
Charles Frodsham & Co
Running time: 75 minutes
Format: DVD (PAL/NTSC)
Price: £12 (All proceeds go to Prostrate
Cancer UK in memory of Derek)
Available from: bdvideos.co.uk
01959 523339

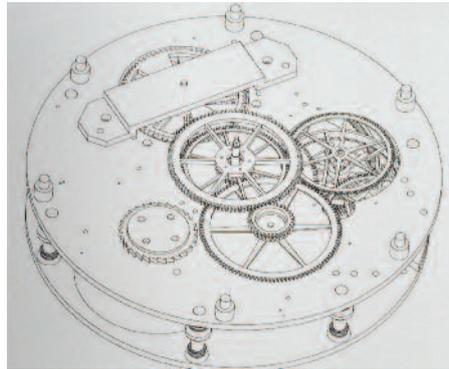
Recorded and produced by Barbara Darby, this superb video has two parts. The first (54min), narrated by Derek Pratt, formed the basis of his 2008 Roche Lecture at West Dean and also at BHI-150, which he was too ill to attend. The second part (22min) covers the completion of the work by staff at Charles Frodsham & Co.

The video begins with Derek outlining his childhood fascination with the work of John Harrison, the development of his passion for watchmaking and his special interest in H4. His conversational style is delightful and he explains how he resolved 'to make another one'. First he makes the watch frame, which determines the size of the pair-case required.

We then move into the Clerkenwell workshop of casemaker, Martin Matthews, where the introduction of electricity seems to have been about the only concession to the twentieth century. This section is absolutely magical. The simple craft skills employed by hand and eye, with very little measurement, are a delight. There are lots



The pallets in their holders on the staff.



A CAD drawing of H4.

of take home lessons to guide more mundane projects.

Our next stop is in Holland, for Jos Houbraken, to make and decorate the vitreous enamel dial. Again narrated by Derek, this outlines the multi-step procedures and the painstaking penmanship required.

Back in Derek's Swiss workshop, his skill, not only as a craftsman but as a teacher, shines as he explains the function of Harrison's maintaining power, hidden within the fusee, and Derek's reconstruction of the (ultimately unused) timing mechanism.

Skilled English engraver, Charles Scarff, was entrusted with the superb engraving of the back plate, cover plate and bridges. We see precisely how the design was laid out and the skill with which the final result was achieved.

For the last section of this first part we return to Derek's workshop for an introduction to the jewellery and the tiny D-section diamond rods that formed the pallets of Harrison's unusual verge escapement. Derek closes by saying that for the detail of this work we would have to wait



Pillar plate side assembly.



Top plate assembly.

for 'the next lecture'. Sadly it was not to be.

Derek had known for some time that he would not live to complete his H4 project. Philip Whyte and Roger Stevenson of Charles Frodsham & Co became closely involved and agreed to take over the work after Derek's death in 2009.

Part 2, ably narrated by Roger Stevenson, describes the completion and timing of the movement. More of the extraordinary complexity of H4 is revealed and carefully explained. A single viewing is rewarding, but, as in Part 1, many will find they need to be flitting from the pause button to the rewind slide to fully understand the complexity of the mechanism.

With videos, still images and computer graphics, Roger deals with completing the final wheels of the train, jewellery, the remontoir, the balance and escapement. There is a great deal of information for the clock and watch restorer to take away; including many methods for producing first-class work.

The Pratt/Frodsham H4 was completed in time for the 'Ships Clocks and Stars' exhibition at Greenwich in March 2014. In a 9-day static test it achieved $\pm 2s/d$; within the $\pm 2.8s/d$ average required, on a six-week voyage to the West Indies, to qualify for the Longitude Prize!

Barbara Darby is donating all profits from this video to Prostate Cancer UK, so you may wish to add to the £12 asking price. Other craft videos on the site are well worth considering.

If you have a horological book or DVD you would recommend we would love to hear from you.

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