THE KERSTELENBACH BRIDGE IN HO – Part 1

From Perth, Australia, Martin Engel sets out his bridge building saga

My interest in Swiss Railways is focused on the Gotthard rolling stock from about the 1920's to the era of the Re 6/6 - a time when Swiss locomotives were green and had round headlights. Unfortunately I have no model railway to run these trains, mainly due to suffering from 'imagination construction' (it is at least easy to make changes) and my own expectation of the end result. The grand plan has always included a bridge as the focal point, which the Gotthard has in abundance, and I chose the Kerstelenbach Bridge on the north ramp at Amsteg. Completed by the Gotthard Railway in 1881 its final form, prior to being replaced in 1969, captured my imagination - the character of old world iron lattice construction has an individuality that some single span stone arches and welded steel beams lack.

The Kerstelenbach Bridge after electrification.
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The spans underwent several upgrades over their eighty odd years of service due to increases in traffic and train weights. In 1903 the Directorate General of the SBB decided that the load bearing calculation had to be improved, and existing bridges strengthened to 20.6 tonnes load above that of the existing bridge regulation. The original single track spans of 1881 were strengthened with negative reinforced straps (fish belly), the newer spans carrying the second track were designed to the 1892 first Federal Bridge Regulations and only required the strengthening of the bottom chord.

Collecting and finding information on the bridge, construction methods used and the local area geography in Amsteg has been a prolonged process. My book collection has certainly grown over those years! I owe thanks to Brian Hemming, Malcolm Hardy-Randall and the Archiv fur Denkmalpflege (Archive for Monument Care) in Bern who helped a great deal when starting this process more than ten years ago. Along the way I did waste time on 'imagination construction' by considering modelling the spirals at Biaschina, but realised eventually that the space required for a 1:87 scale layout was going to be an issue in our home. Any home! The Pianotondo viaduct would have looked magnificent, but taken the space of a family car on its own. In saying that Kerstelenbach in 1:87 scale is, well, big. It stands 565mm high from the lowest point and is 1670mm long from the ends of the stone arch approaches. Its impact will certainly achieve what I want. In the end the bridge could suit as a diorama for pictures, if not part of a layout.

The bridge construction phase of this project has been on and off for just over two years to date, and is approaching the stage were I am thinking about the base board design. At 8m long the scale length will be maintained from the Windgällen tunnel to the Bristen tunnel, the scene will be in perspective and hopefully an outstanding model railway one day.

In autumn 2010 my wife and I visited Switzerland and the rustic colours from the train window looked like a large patchwork quilt on the mountains we passed. This would certainly add to the interest on the layout, something a little different from green pine trees and grassed meadows that most people would expect. An afternoon visit to Amsteg resulted in my literally taking pictures of everything, from the interesting little railwaymen's huts on the line to the sign on the main pillar next to the road, which in true Swiss fashion gave the potential offending person no reason to misunderstand the regulation. To get to some vantage points it was damn steep and I found out how unfit I was that day, but I did remember to collect the obligatory souvenir piece of ballast - *only one!*

The 1:87 scale model of the Kerstelenbach Bridge in front of my single car garage door, waiting for two more spans and additional detail. PHOTO: Martin Engel