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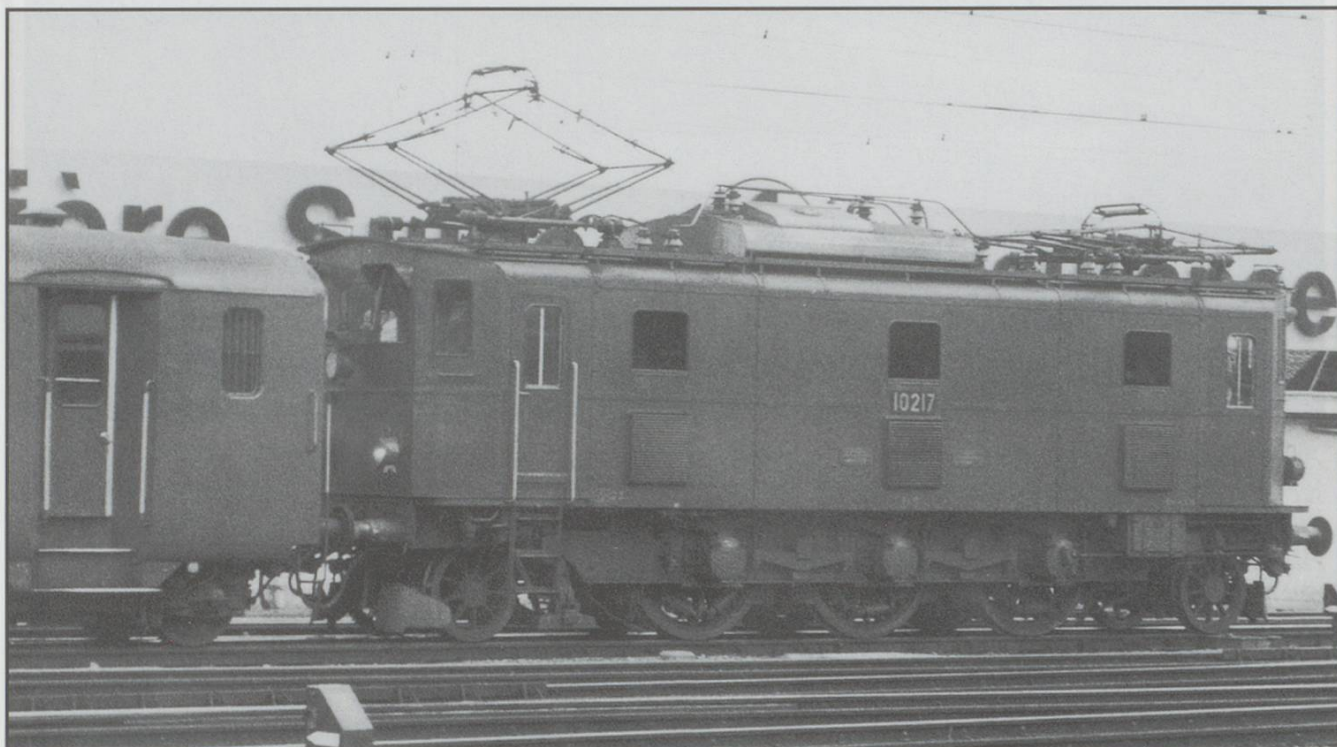
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# THE MODELLING SECTION

John Jesson

## THE BABY SÉCHERON



*The prototype of the Rivarossi model, 10217, leaves Lausanne on a stopper to Yverdon. 28/06/75*

*Photo: Alan Pike*

A couple of years or so ago, Rivarossi introduced an HO model of the CFF Ae 3/5. Last year I got around to adding one to my collection, and a very nice addition it is too.

Unfortunately, looks are not everything, and the first test run showed up a rather important problem. If the track were not absolutely flat, the loco lost traction and sat in one place with the driving wheels spinning uselessly. The cause seemed to be that the pony trucks, rather than the driving wheels, were supporting the loco. At the time, I had too many other calls on my time, so the problem was deferred and 10217 languished in its box.

This year, a protracted bout of illness has allowed me to catch up on a few modelling projects, among them 10217. The model is driven on the outer two driving axles, with traction tyres on two wheels at diagonally

opposite corners. Current collection is from the other two driving wheels plus all four pony wheels, giving three pick-up points on each side. The pony trucks are cast metal and plastic and carry phosphor-bronze strips that bear on the back of the pony wheels. Transfer of the juice to the motor is not done by wires, but by more p-b strips projecting above the pony truck and bearing on contacts mounted on the underside of the body. At first, I thought that these contacts were too strong, forcing the pony trucks to sit too low and causing the aforementioned loss of traction. Investigation showed that there was not enough power in the spring contacts to do this, which gave rise to some head-scratching. The loco ran perfectly with the pony trucks removed, so the reason for the problem was confirmed. One pony truck was loosely replaced and another test



made. No problem. The other pony truck was similarly replaced. Again, no problem. "Hmm". After thinking about it for a while, I could come to no obvious conclusions, so I finished tightening the pony truck pivot screws. Surprise, surprise - the driving wheels spun in the air. This, then, was the cause of the problem. When the pivot screws are fully tightened, there is insufficient vertical movement to take up any track irregularities, not even a change of gradient, as the pony trucks have to bear on the underside of the chassis - a bit of a design flaw. Fortunately, the screws are self-tapping, and are a tight fit in the metal chassis casting, so loosening them a touch does not cause the screws to work loose and fall out. However, to be sure, pop a small chip of wood into each hole and tighten the screws against these. This is a bodge, rather than a properly engineered solution, but seems to work OK.

Having sorted out this mechanical problem, I set about another. Changing the couplings. I use Kadees, but Rivarossi seem reluctant to fit NEM coupler boxes on their locos, so it is not a straightforward job. The coupling fitted is the European standard, with no provision for changing it to anything else. The coupler head is slotted into an extension of the pony truck plastic part, so removal is easy. This leaves a short stub of plastic. The advent of the plug-in Kadee has proved a boon to European modellers (who have accepted the Kadee with open arms) and the provision of four different shank lengths is very useful. The shanks are flat and made of a plastic material, so they are easily drilled, making a much more straightforward job of fitting non-NEM box vehicles with Kadees. As I have done on other models, I used the longest of the couplers, the #20, trimming off the tines. The lower (metal) part of the pony truck protrudes in front of the top (plastic) part just enough to allow a hole to be drilled into it to take a 16 BA screw. The little stub of plastic left after unslotting the coupler head extends over the top of the metal, and provides a key for

starting the hole. I drilled through the metal casting, then tapped the hole 16 BA. A clearance hole was drilled as close to the end of the Kadee coupler shank as possible, then a trial fitting made. Length was fine, but the coupling sat too high, so the plastic stub was removed. This time the height was also right, although there is very little support for the coupling. I will try things as they are for a while and, if problems develop, will add an extension to the front of the pony truck to act as a support.

The final stage was to add the various detailing parts that come with the model. Although it is not necessary, I removed the body to do this and found it was a very tight fit on the chassis. The best way seems to be to ease



*Of the several CFF classes fitted with Sécheron drive, the Ae 3/5 class was the smallest, its members sometimes being known as "Baby Sécherons". 26 of them were built between 1922 and 1925 by SLM and SAAS and spent most of their lives working in the French-speaking parts of the country. During the 1960s, 10218 10226 were modified to work car trains through the Gotthard and Simplon tunnels and one of these, 10224, was photographed at Airolo in the summer of 1967.*



the body sides away from the chassis all the way round, maintaining the gap with quite a lot of wooden toothpicks, then alternately easing each end until the body comes free. Removing the body releases the end 'platforms', which are thin metal and locate over spigots on the chassis. Don't forget to replace them when putting the body back on. Back to the detailing. At first glance, Rivarossi have been very helpful in showing where the various bits should go, even colour coding those parts that should be left off on an operating model. However, not everything is as easy as it seems.

The cab footsteps are no problem. They plug into holes on the underside of the chassis, under each cab door. The two cab signalling pick-ups locate into similar holes, but are left and right handed, in order to fit around screw heads. Both are positioned at the same end of the loco, one each side between the pony and driving wheels. There are two sandboxes for each side of the loco. These fit snugly over part of the suspension moulding between each pair of driving wheels and were fixed with gap-filling CA. Protruding from the bottom of each sandbox are two plastic pipes, which Rivarossi tell us to bend towards the wheels. This is easily done, but they immediately spring back again! I have cut off the pipes and replaced them with 0,45mm brass wire, inserted into 0,5mm holes drilled into the sandboxes, and fixed with CA. Once set, the brass wire is readily bent to shape, cut to length and painted as near to the underframe grey as I could match. Brake pipes and a dummy coupling are provided for each buffer beam, but these are recommended only for static models. Leaving them off leaves rather obvious holes, so I have installed them and trimmed them back to miss the swing of the coupling. A set of lenses is supplied, two white, two red. These are for the lower right headlamp at each end. The Swiss use a single red tail light when running light engine, so using one of the red lenses condemns the loco to one-way operation, so I have

fitted both the white lenses. I was left with four tiny blackened metal pieces, looking like elongated "hooks", which are neither mentioned nor illustrated as additional parts in the instruction leaflet. Their shape seemed familiar, but I was unable to immediately place them until I found a pair of holes in each body end. The "hooks" are the small handrails that protrude from the body each side of the centre door. The pieces are so small and delicate that care was needed to mount them, but the job was successfully done, and 10217 was ready to enter service. (Note: you will need to cut away some of the model's box material to accommodate the end handrails.)

The model has a cast metal chassis with a centrally mounted motor that drives directly the two outer driving axles. A pcb mounted above the motor distributes the electrical supply, and there is a removable plug to facilitate installation of a DCC decoder. The body is plastic with the sparse detail of the prototype finely reproduced. The cab handrails are etched metal and come already fitted and painted yellow. The cab side door windows are printed with a representation of the frame and the vertical stripe that allows the driver to see at a glance whether the window is open or closed. The front cab windows have wipers moulded on and picked out in silver. Triple headlights are fitted. The lamp housings are separate mouldings pushed onto the light conduit that is fitted inside each cab. Lights are directional, all three being lit at the 'front', with the lower right light only lit at the 'rear'. The cables that loop between each lamp and its connection box are represented by printing on the body ends. For anyone who wants a nice, fiddly job, a better representation could be made using fuse wire or similar. The loco number, builders' plates and other markings are very clearly printed, I think the best I have ever seen. With a magnifying glass, it is possible to read the full text on the works plates, including the 'small print'. I usually fit etched number and works



plates to my Swiss locos, but not this time as the printed ones are so good.

On the roof, the working pantographs are made up of etched components and are very nicely done. The power conduits are moulded in a bright red plastic that definitely needs toning down, but is commendably fine and mounted on two types of dull green insulator. The walkways along each edge of the roof are moulded as part of the body, but are picked out in brown. The underframe sides are well moulded, showing details of the suspension and axle journals, each complete with its little Swiss Cross in the centre. The wheels all have plastic centres with a turned metal rim of darkened metal. The driving wheels show details of

the prototypes Sécheron drive mechanism and the pony wheels have 9 spokes.

Overall, this is an excellent model from the Rivarossi stable. The only improvements would be the elimination of that one little design flaw on the bogie pivots and the replacement of the plastic sand pipes with metal ones that really could be bent to shape. It would also help if all the additional pieces were shown or listed. Oh, yes, please can the locos be fitted with NEM coupler boxes. Even better though, we have baby's big brother, the Ae 3/6<sup>III</sup>, to look forward to, this having been announced by Rivarossi this year.

## Mike Polglaze

## TRANSALPIN IN GRAUBÜNDEN Stock Changes for San Giacomo



*The former Lima Transalpin motor car, altered slightly by Mike Polglaze and on his new layout, San Giacomo. Pictured at the Derby exhibition, April 2001*

*Photo: Editor*

The "San Bernardino Express", known to the operators as the SBE, a name borrowed from a PTT post bus service that runs, or ran, from Thusis to Bellinzona, has had a change of stock. Over the years I have collected quite a number of Bemo short coaches. Two of them, a BD, one end dealt with the same way as Z 91, and a B already in Bernina colours, worked on the SBE along with a set of Pullmans and WR 3814. Four of the shorties were repainted in Bernina colours and the six coaches plus the WR now form the SBE. The

Pullmans, like their prototypes, now only work on special trains.

The final change is VSB not RhB. It was in Switzerland in the 1970's that I first saw the ÖBB 4010 units on the "Transalpin", then running between Basel and Wien. They very soon became a firm favourite, I was to see them many more times, in Austria, after the "Transalpin" traffic outgrew them and became a loco hauled service. I must say I do not like them so much in the new ÖBB colours as I did when they were in blue and cream.