Sundry Snippets 03 *By Mike Sharman*

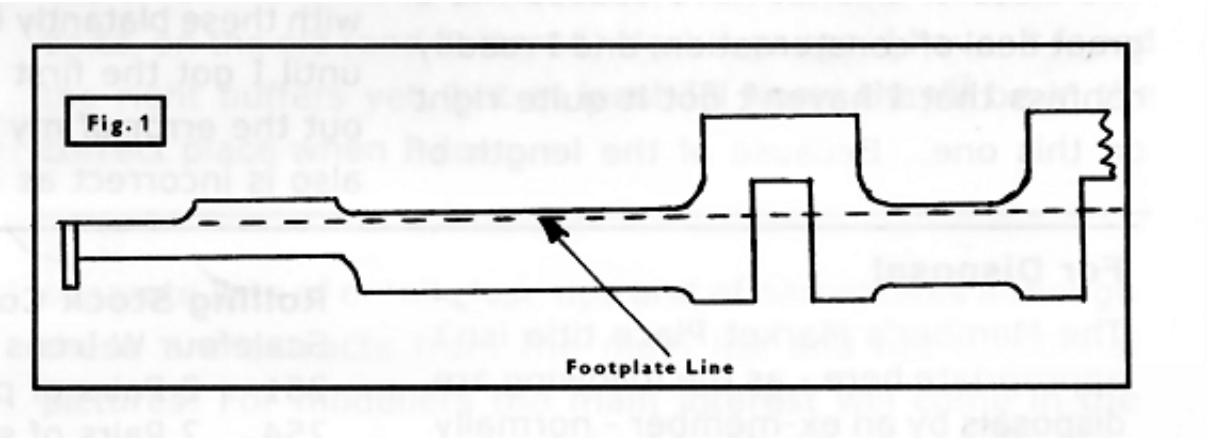
Chassis in kits are certainly improving, but plenty of old designs are still around and giving the builders a lot of trouble. What I would like to do is discuss building a chassis from scratch, and then the kit builders can modify their own units before assembly with any ideas that take their fancy.

I don't want to raise the old time-wasting arguments with the armchair brigade on prototype chassis, so I will just say that we cannot copy the prototype exactly, and expect it to run on the average working layout with the running quality the S4 concept deserves - without making compromises to prototype fidelity.

How to solder two sides together, cut out and fit bearings and hornguides is well documented both in Scalefour technical data sheets and the Flexichas book, so I won't labour them here, but concentrate on designs and problems.

1. The model needs to look as much like the prototype as possible, and quite a good guide is - if you can see it, fit it. If you can't, then leave it out as space taken up by invisible items could well inhibit the performance of the 'compromise' items needed to make the chassis work in model form - beams, hornblocks, springs, pickups, bogie pivots, radial trucks and motors.

2. When you are marking out the frames, study any drawings and photos carefully as frames don't cease to exist just below the footplate! They extend several inches above around the cylinder area, and often half way up the splasher backs around the hornguides (See Figure 1).



3. Most kit and scratch builders these days use the 'L' shaped spacer in frames as 'standard', and a small modification to the vertical face can be useful (See Figure 2). Drill or file a hole in it leaving about 1 - 2 mm of material to solder. The square hole left can allow the easier fitting of beams, springs, or wire pickups, etc.

4. As a general guide, the longer the driven wheelbase, the more sideplay will be required and the narrower the chassis will be.

An 0-4-0 will require no sideplay, but will require clearance for tilt on one or both axles, and this will increase with wheel diameter. I find about 15mm gives enough external room for sideplay.