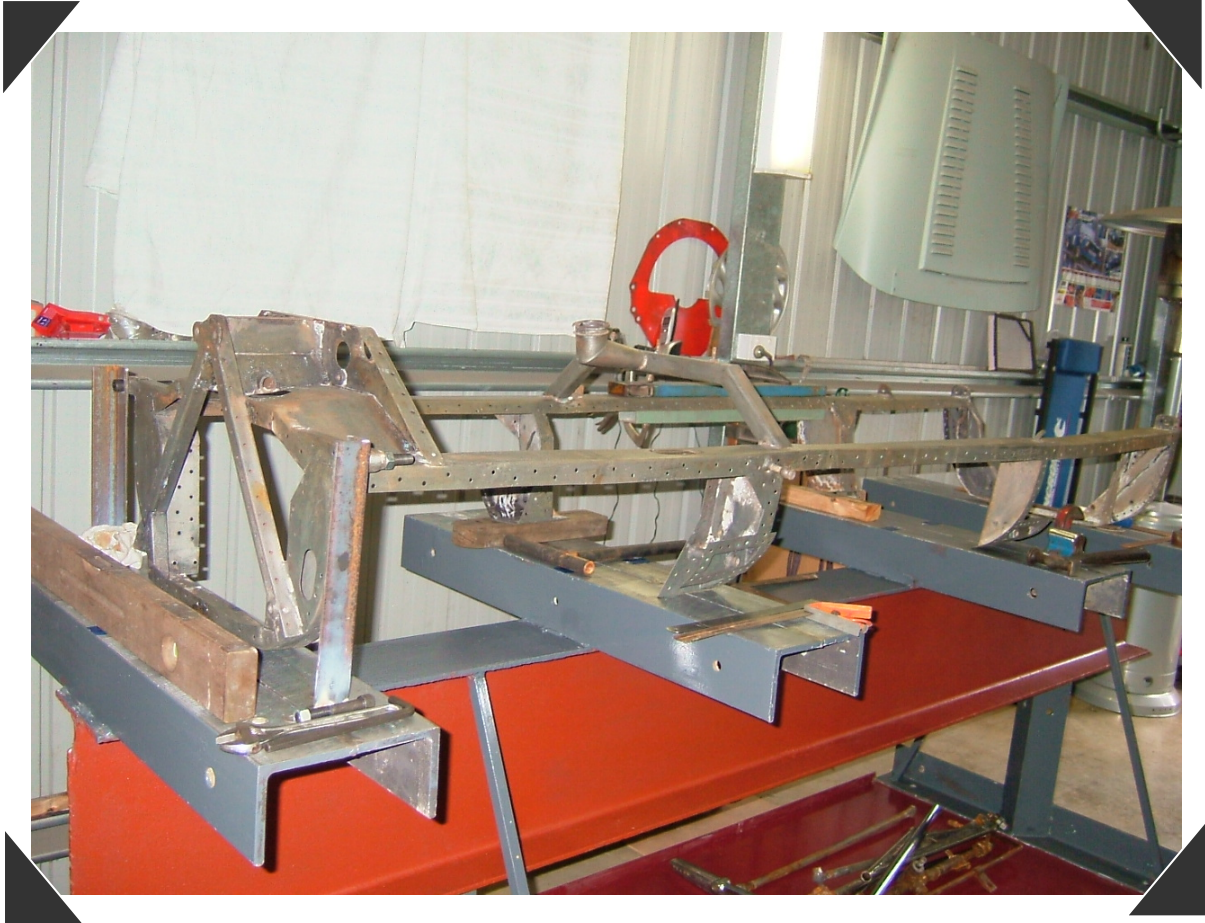


## ON THE OPERATING TABLE... 22<sup>nd</sup> May 2007



**W**hen an Elfin comes in looking pretty sick there is only one place to be... on the operating table.

Steve picked up the Mono in late March and initially laid it out on the floor to see what was there and what was missing or damaged. We agreed that building a jig that was heavy enough to work off and would provide a perfectly flat and rigid platform would be a good investment, and what an “operating table” he built. A set of caster wheels, a length of old 300mm RSJ, some 100mm heavy channel and a couple of days of cutting and welding produced a masterpiece, fulfilling all the geometric requirements for setting up, and providing a comfortable level to work. Add to that a full tray across the base where all the components can sit, and a coat of paint to hold off the rust and keep it clean, and the result has turned out to be quite a masterpiece. The cross pieces on the table coincide with the bulkheads and cross members on the Elfin frame and provide clear reference lines at right angles to the longitudinal axis of the car, and a centerline has been permanently marked with hacksaw cuts from front to rear. Vertical supports at the front bolt to the shock absorber mounting holes to locate the front in the correct position, accurate in the three planes. The table is set up for some pretty serious measurements and when the rear plate across the chassis is similarly fixed nothing will move.

This is basically where the car will live until all the aluminium sheeting is completed and the suspension is back in place. Trial fitting of the motor and all the components can also be done here.

What did we find?.... Well the frame, previously flopping all over the place so you couldn't really tell, has been hit in the past probably on the left just behind the first bulkhead and was about 15-20mm out of square. This was not obvious until measurements of this accuracy could be made. The horizontal rails at the rear which previously looked all over the place, have fallen closer into line but will still need a lot of work. The jury is still out whether it will be better in the long run to replace the top rails, given the twisting that will have to be carefully repaired, the various holes that have been cut during it's racing life, and the fact that it is impossible to line up the new rivets to hold the aluminium with the old holes in the frame. As there are 2000 rivets a lot of welding and grinding will be required to fill holes and new top rails may be a better way to go.

With the frame in this position it is possible to see some of the challenges that lie ahead. The lower "floor" of the internal sheeting is not flat across the full width and will require some very accurate folds to provide the longitudinal stiffening and the accurate lap joint for the curved sides, The complete inner piece will be folded from a 1.2m x 2.4m aluminium sheet... not easy to handle and expensive if it is not correct. The finished surface will be polished aluminium so no opportunity to fill or hide any mistakes will exist. The right hand side also has some additional folds to form a cavity approximately 100mm wide x 40mm deep where the water tubes to and from the radiator will sit.

At this early stage the patient is on the operating table and in good hands. Full recovery is some way off but looking far better than it was earlier. Certainly we are off the critical list and everything from here on will be an improvement.



## 14<sup>th</sup> JUNE AND SOME GOOD NEWS

In the workshop out at St. Andrews the Elfin Mono shares the space with a an Elfin Catalina that is making steady progress, a Lotus Cortina in for a full engine rebuild, and a Triumph TR2 that looks straight but is stripped completely for a rebuild. Some work on the others provided “thinking time” before the next stage of progress on the Mono. In the mean time I was able to pick up a very nice Smiths Chronometric 10,000 rpm rev counter on eBay in America. It’s hard to tell if it is “New Old Stock” with a few scratches on the back from storage or a little used one but it is exactly what is needed and will look very nice when fitted to the dash panel. There is always a bit of luck in restorations and the rev counter came at about half the price we had expected.

By 14<sup>th</sup> June there was some good news though. On side of the frame had been completely restored without cutting out and replacing any metal at all. The other side will definitely straighten now and the whole of the frame will be saved with the exception of the very short horizontal section behind the marker pen in the photo above. That has been cracked and welded and has probably hit the ground many times in the past and it just doesn’t make sense to try and save it. But what an achievement!! Saving 99% of the original frame is fantastic and secures the authenticity of this famous car. It is not practical to save battered original skins and the standards of presentation demand that new aluminium sheeting is fitted, but saving the entire metal frame is a real achievement.

Progress is definitely encouraging.

What next? Drawings have been prepared and will be supplied to the sheet metal shop to have the inner tub fabricated. The order for this will go out next week. The radiator is in reasonably good shape but the core will be replaced. It is 43 years old and once installed we never want to take it out again so we will send it off now and hope it comes back in good time to fit after the monocoque is complete. I will keep looking for instruments and other bits and pieces. We are probably 2 months away from fitting them but they can be ready, polished, and what a great day it will be when they can sit in their final position. Suspension and steering will be in the back of the mind but focus will remain on the tub until it is complete.