Rebuilding a 1937 Morris 8 Sports Episode 2: Running boards

The author in a relaxed moment.

Hi, my name is Alister (Al) Gardiner. This is another episode in the trials and tribulations of our Morris 8 rebuild. I hope readers might find something of interest amongst the content.

My apologies if it is all a bit ho-hum to the more accomplished of you. For feedback I can be contacted on
027 922 2242, or at grannybigal@xtra.co.nz.

Topics

The topic of this instalment is the recovery and refurbishment of the running boards. Future articles will highlight some of my further solutions to the rebuild challenges, at present including:

- installing front shocks – there were none in the box of bits
- fixing the fuel gauge - what I did to stop it reading backwards
- starter motor nightmare - did these things ever work at 6V?
- additional electrics - LEDs, turn indicators and 12V starting
- upholstery trim - a bit of individuality on the door pockets
- starting issues - how can something so simple be so difficult?
- my car battery – a custom solution using the ubiquitous 18650 lithium ion cell

These will take a few months to compose and deliver. I suggest that if anything is of immediate interest; get in touch with me or the editor to see if it can be prioritised. See past issues for other topics I have covered.

Running board condition and initial preparation

The condition of the running boards was pretty bad, as to be expected. Patches of the rubber covering had been broken off or perished, and in many places the steel under-plate was rusted through. A gas torch and scraper blade/cold chisel were used to physically remove as much of the rubber as possible.

The rest was ground off. This was hard work where it was still bonded to the steel. Best to do it outside with a water-saturated rag to hand, as the rubber can burst into flame. It will then give off copious amounts of black smoke. After wire brushing, grinding off and cutting out the remaining rust, where necessary steel patches of the same gauge were fabricated and welded into place to bring the metal frame back to full strength.

I was surprised at how flexible and flimsy the basic uncovered steel plates are. I carried out a trial fitting on each side, and had to do some (inexpert) shrinking and beating to remove the worst of the bulges, dents and creases. I then treated them with an anti-rust preparation, and painted them with a good 2-pot epoxy primer seal coat. Then I filled the few shallow depressions left on the top surface with ordinary body filler and sanded it smooth. Another coat of epoxy primer was then applied over these areas.

I am a great believer in sealing the bare steel with an impervious layer of paint to protect against ongoing rust before applying any polyester based filler. The introduction of epoxy primer paint makes this approach more beneficial, as it sticks like the proverbial and provides a hard, waterproof coating. (I addressed all the steel bodywork on the car the same way – firstly patch with the correct thickness steel sheet, grind back the welds, apply epoxy paint, finish with body filler, and apply a further coat of epoxy.) However, this is all pretty straight forward stuff, and not the main reason for this note.

Rubber Tread Replacement and Adhesives Used

I believe that shaped replacement rubber tread mouldings are available from England, but at a delivered cost that would be prohibitive for me. I sourced rubber sheeting with a longitudinal tread pattern locally (with pitch a bit finer than the original) at a very reasonable price. Now came the challenging part - how to stick it on. I consulted the few on-line sources I could find (all from overseas) on adhesives and application, and was not inspired with much confidence. Especially since the adhesives used weren't generally available at the local hardware store, or it seemed that some would stick well to the steel but not to rubber, and vice versa. Another problem was that I had created an epoxy paint surface instead of clean bare steel, and no one recommended sticking

rubber to this. I decided to carry out some experiments.

Adhesion Experiments

One of the several brands of black polyurethane adhesive/sealant suitable for use in my dual adhesive approach.

I carried out tests with Ados F2 contact adhesive, a flexible black urethane and a couple of other types of construction adhesive available from local hardware stores. None of my selection would stick well to both surfaces. I found that the Ados contact adhesive stuck well to the rubber but not the painted steel. On the other hand the polyurethane stuck well to the painted steel but not the rubber. These were the best of the bunch for the respective surfaces, so I wondered if the two would stick together. If so, using them together would also solve a problem I could see with using contact adhesive alone – you only get one chance to align the surfaces. This is a particular issue with the running boards where the tread pattern must be accurately positioned longitudinally, right at first contact.

The Adopted Solution

I tried the double adhesive solution on test pieces and presto, after drying overnight under modest pressure a perfectly flat and very strong bond was achieved to both surfaces. Inclusion of the polyurethane layer also provided a benefit of smoothing out minor imperfections in the metal surface, which would not be possible with a thin layer of contact adhesive alone.

The rubber tread sheet was roughly cut to size. It was cleaned with solvent (MEK/Acetone) to remove any traces of the extrusion die releasing agent. The rubber was then bonded to the painted metal surface as follows. A reasonably thick layer of Ados F2 contact adhesive was first brushed on to the rubber sheet and left to touch dry. The degree of drying is not critical, and in practice thinner parts dry much faster than thicker. While the contact adhesive was drying, an even coating of flexible waterproof black urethane adhesive was applied to the running board surface (it comes out of the gun applicator tube in a thick

paste consistency). I used a ribbed applicator and putty knife to spread it out, taking care to make sure the paint surface was not damaged.

The F2 coated rubber sheet was brought into contact and moved around until positioned and aligned as desired. Any adhesive lumps or air bubbles were smoothed out. A small roller is useful here. Modest pressure was then applied over the profiled horizontal running board surfaces by inverting it on a suitable reverse profile (you may achieve a better job if you construct something suitable although I just used old blankets, etc.).
This was buffered with a 50mm foam sheet to spread The pressure across the surface of the sheeting. The metal underside was then loaded with as many heavy objects as necessary in appropriate places to achieve a reasonably even pressure.

A section of the finished LHS running board.

The sides and edges were then smoothed down and clamped (with whatever you can find - clothes pegs, croc clips, woodworking clamps etc.) until the polyurethane was cured enough to stay bonded (~2 days to be sure).

Hints: Smooth out the urethane with a notched spreader and keep excess to a minimum. Apply loading/clamping evenly wherever necessary to avoid migration and lumping of the polyurethane paste, and to stop the sheeting lifting while the polyurethane cures. If the polyurethane is applied judiciously, flaps and wrap-arounds can be left to be dealt with a bit later as it thickens. Subsequent glue stages can make 180 degree wrapping and fixing to other faces easier. Excess sheet was trimmed off when fully cured. This task was carried out over 2 years ago. There is no sign of any of the wrapped surfaces or edges lifting. I have recently observed that some small cracks have appeared on the rubber surface where it was bent sharply at 90 degrees or more, so sharp bends

should probably be avoided (due to the nature of the rubber material, not the adhesives).

Sculpture/Styling

As any Morris 8 owner will know, the original running boards had a ribbed tread pattern on the top surface, with a smooth rubber side face. I approximated this effect by masking the edge of the top tread area and applying several layers of thick black mastic industrial sealer to the sides with a scraper/spatula. This has removed most of the grooved tread effect from the sides which now look a bit closer to the original. The mastic has dried off to a hard, durable surface with no signs yet of chipping or peeling. Again, a cleaning solvent was used before application.

That's it for this this instalment - more next month.