## Diagnosing and repairing rust on the bottom rear part of the Le Sharo coach

During the process of renovating a 1984 Le Sharo TD I bought in August of this year I encountered some rust in the bottom rear of the coach. I removed the bumper (I did not know it was made of aluminium!) and the hitch. I had two main concerns:

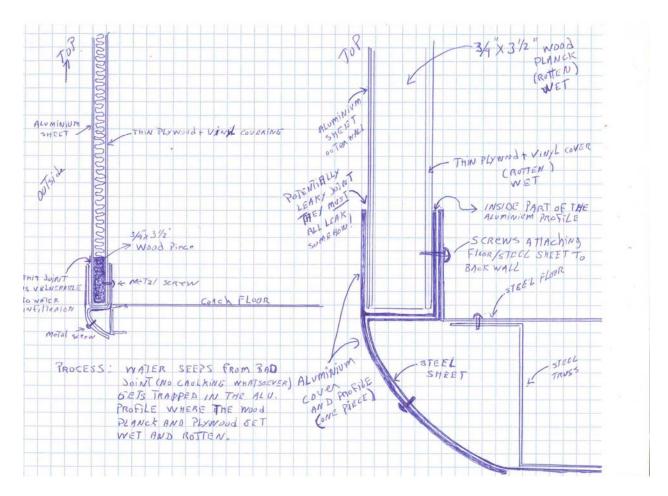
First one is the rearmost truss that's parallel to the bumper and behind a sheet of aluminium. It was almost completely rusted out. The floor is good though and the sides, behind the steel decorative panels are relatively good. I didn't know how to remove the outside aluminium bottom part (please see the drawing below) that sits over the bumper attachments sticking out of the body. In order to remove/repair the rearmost truss, it is necessary to remove this aluminium sheet and it won't come off easily... This rectangular panel is joined with the rest of the rear wall and held by screws INSIDE, close to the floor and OUTSIDE the camper on the curved part of the aluminium cover. I removed the screws (both inside and outside of the camper) but although the piece of aluminium became quite loose, it did not seem to come off easily and as hard as I pulled on it, it did NOT come off. So I had to remove both the white plastic side covers to gain access and remove the screws that held the rear wall on the sides. It is necessary to remove the bottom aluminium part in order to replace/repair the damaged truss and steel sheet cover. So, with the rear wall removed, I was able to pull it out and remove the bottom aluminium part. With a cleared place, I removed the rusted out metal, cleaned and treated the remaining metal with rust paint and replaced the sheet metal that was irrecoverable.

My second concern came after having removed all of the metal (aluminium and steel pieces that made up the inside bottom part of the coach's wall. I knew that I had a problem in the bottom part of the inside wall because the wallpaper was deformed and the wall was kind of "soft" to the touch. In fact, all of the bottom part of the inside wall (the 2/3"X31/2" wood piece and thin plywood) was rotten and soaking wet! At least in the case of my own Le Sharo, the water does NOT seem to have come from a leaky top. The upper part of the wall is solid and dry... The water apparently came from the BOTTOM joint between the two sheets of aluminium that meet at the bumper level (see below the included drawing explaining and illustrating my findings). This joint is not caulked in any way and does not appear to ever having received any caulking. So, water seeps in from the outside of the joint and gets trapped in the bottom part of the aluminium profile where the inside wall structure resides. I guess that water seeps slowly but surely and that the rotting process is equally slow and sure...

The fact that the joint outer lip is oriented upward also helps to explain the water infiltration process.

I also determined that the rusted metal is mostly caused by water projected by the rear wheels when in motion. I discovered that the centre section of the steel structure is much less rusted than the side sections and that the right section (where the mud flap was missing) is much rustier than the left one, where the flap is still there. My opinion is that the mud flaps are an ESSENTIAL part of the rust protection. They are somewhat TOO SMALL, and consequently do not protect the rear part of the coach appropriately, even if they stay there. But if they get lost, then the rusting process accelerates greatly.

Having seen that, I will repair/rebuild the steel truss and steel sheet and coat it with a generous amount of anti corrosion stuff. Moreover, I will carefully seal the potentially leaky joint in order to resolve the problem I just described in this text.



The repair/replacement process of the steel sheet and truss varies considerably with regards to the condition of the rusted parts, so I will not go any further in its description. Lets just say that it has to be well repaired in order to prevent any reoccurrence of the rust (I will welcome any suggestion as to how its done in the best possible manner).

Jacques Pagé