



# Replacing the LEAD on a 1940 Packard 2-Door Sedan

*by Ron Carpenter*

I am ready to repair the lead seam in the rear of the 1940 110 2-door sedan. The lead on the rear body seams is cracked (actually, all the lead is bad and will have to be replaced). The thing about the lead work is that you do not grind it without a mask, and basically you file the lead once you have it replaced. What I have to do is melt the old lead out of the seam and then prep the area for new lead, and then melt new lead back on the body. When I have the lead filed, I will use my DA, but only to prep the area for paint.

A word about lead for body work. It used to be that all body work was done in lead, then they

figured out that it was not healthy for you to have all that lead floating around in the body shop. They even had a system that would spray lead onto panels to repair. In the 1950's, they came out with the first plastic filler and it was



Bondo, which is still around. Today's plastic fillers are great, but quite frankly there are places to use lead and the body seams are a good example. The seam will probably have up to a  $\frac{1}{4}$  inch of lead in the repair. The lead lasted 70 years, but it had cracks and the crack went all the way to the body.

1. The first picture shows where the lead seam is. It is obvious as it is discolored compared to the metal and extends from the trunk to the rear window. I have not done much more than just DA-ing the area. The lead is 70 years old and there are visible cracks in it.

2 and 2A. These show where I am starting to melt the lead off the car. I heat it up and then, when it is melting, I use a piece of steel wool to wipe the liquid off the car. I did not use my acetylene torch to do this—I just used my propane torch.





3. This is a picture that shows where I have melted all the lead off the seam area and completely wiped the area with a piece of steel wool. Where there are cracks in the lead, the cracks went all the way to the body and left rust spots in the metal. These areas are now clearly visible.

4. This is a picture of the basic tools and equipment that I am going to use. Top left are two lead paddles, and they have burned spots on them. In the day when every body man used lead, they would razz one another if someone had "burned" paddles. The next thing is a tub of "Tinning Butter," which I will use to tin the metal before I can put lead on the car. Just like soldering a wire, you have to tin

it first. Next is a tub of Bee's wax that you melt and rub your paddles in so that the lead will not stick to your paddles. I think that they used to use oil on a rag for the same idea, but I like this better. To the right is my 2" paddle and as you can see, I burned that one also. The round tube is a full tube of triangle shaped solder that I picked up at a swap meet at one time or another. Below the tube is one of the pieces of triangle solder, and then there is the heavy lead solder that has the 30-70 on it (the ratio of tin to lead). I have seen 50-50 before, so they made different tin ratios. The bottom is a stick that I have melted two pieces together when they got too short to do anything with.

5. This is a good view of the area I have completely cleaned prior to its being tinned before leading. Sometimes in the process you find areas that have a little rust in them, and they won't take to tinning, so I



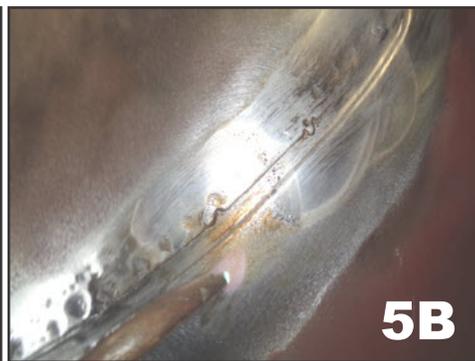
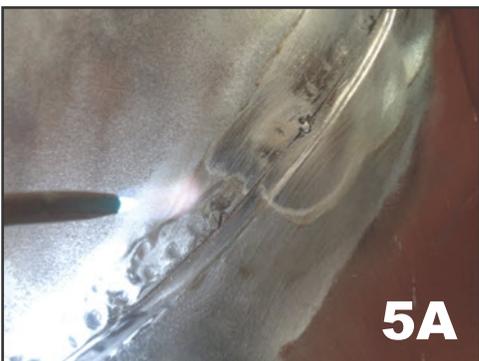
grind or sand to get good clean metal to prep. 5A & 5B. These two pictures show a close-up of where I am cleaning and prepping the area. You can see the corrosion around the factory welds that I have to further clean up by grinding..

6. This picture shows what the tinning butter looks like when you're melting it and wiping it with the steel wool.

7. I have started to melt the new lead into the seam. You use a lot of lead, then you use the paddles to smooth it out once you have all the lead in place.

8. This is a picture that shows all the lead has been melted in place, now time to smooth it out with the paddles.

9. When you have an edge that needs lead, then you have to be sure that you tinned the



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lead and that you have enough of it in place once you file it all down.

10. This picture shows how I have just used only my file to shave down the lead, so that I don't have to do a lot of sanding with the DA to get the correct shape on the metal.

11. I have DA'd the area, now I will use just a little plastic (Bondo) to finish it off.



12. This is what it looks like in primer. I like the red oxide for the first coat; it sands nice and smooth.

13. On a final note, this is a picture of all the lead that I originally melted off, and all the shaving that I filed off. If I had sanded this, there would have been a lot of it in the air. It



filled a one-pound coffee can.

