

Danny D.'s F33A Wing Root Seal Install Pirep

I have a 1975 F33A and my wing root seals were cracked in areas with some gaps so I, after some research and reading several accounts of the job I purchased a kit from Guy Ginbey. I am the type that I learn things visually and I need to see each step in my mind. There are a couple of very good descriptions detailed in CSOB but in talking to others I realized that this would be a much bigger job than I envisioned. I even asked a couple of shops what they would charge me to do the job and basically it was \$2000! I make the typical CSOB guy look rich so I said come what may I would jump on it...and waited almost two years getting my courage up. Note to anyone trying this. Read the accounts on CSOB. Guy produces excellent material but at times can be a bit frustrating in getting some of the information such as the mixing ratio of the adhesive etc. He is now including better information and some of the problem is that I didn't understand what he was saying at times. My fault.

I purchased the recommended flexible Dremel Tool and as suggested by Guy, brass brushes and Toluene. It's all listed on other descriptions so I won't do that again. Now, I was fortunate in that I did not have to trim the wing root gap as it appeared that it was either done before or it was installed that way. I asked a couple of shops how and where they started feeding the new seal on and it varied from the back of the wing to under the wing at the jack point. The fit around the curve of the leading edge was a great concern to me with figuring out how much and where to cut gaps to make it lay down but we lucked out. One of the other descriptions said you can do this solo but another person helps but I have a dear friend that is a great mechanic (retired UAL Captain and ABS Maintenance Clinic Inspector) and he brought another great mechanical mind so we had three people. We started the installation under the door hinge of the cabin door using a bit of Dawn Dishwashing Liquid water mix sprayed lightly as needed. He started feeding the lip in the gap and I was helping by ensuring it was pushed down into the gap and pushing it forward to the leading edge. I worked it around the edge where the third person took hold of the end and pulled. So, we had one feeding and then me pushing and the third guy pulling. We were able to put enough tension on the entire operation that cutting gaps was unnecessary and it lay down beautifully. We worked it back to the trailing edge and left a bit of tail hanging off. I washed the entire area down and let it dry overnight. I mixed the adhesive and worked it in the next day and had a few places that I placed weight on. I didn't have bricks available but I used some 2X4s and made some sandbags to lay in places that I wanted to ensure a tight seal. I really like the sandbags due that they will let you form fit the pressure. Now the bottom of the wing was a different story and I had to Rube Goldberg some bracing to ensure everywhere that might be a bit loose or gravity pulling the seal. Also, we didn't quite put enough tension on the left leading edge and it bowed out a bit so I put extra adhesive and due to the curvature, I tried putting boards etc. to hold it down but came up with the idea of using a tie down strap around the entire wing with very little pressure. Just letting the weight of the ratchet mechanism putting a bit of pressure on the leading edge...worked perfectly.

Now some thoughts and hints that worked for me. Installing the new seal...Relatively easy. Right wing took the three of us about 4 hours and the left wing (had a wider gap) took just over an hour total. Again, three people. Removing the old seal and cleaning out the gap! Not easy or quick. The right wing (smaller gap) took almost eight hours and I used a 90° heavy pick mainly but it is not easy nor fun. I worked very hard to ensure that all the remains were removed. The left wing had a larger gap and was much easier and the old seal didn't seem as "rotten" and I had it completely cleaned out in about three hours. My buddies came over again and we installed the left seal (again without cutting gaps) and we had it installed in just over an hour.

In total...NOT a fun job but doable. I cleaned one day, installed the seal and washed out the soap and let it dry overnight and then applied adhesive and let that cure for at least 24 hours before flying. I have flown it now and all is well.