

Ruddervator Repair Approval

By Dave Lauren, SRS Aviation

SRS has some encouraging news for the owners of V-Tail Bonanzas. No, we do not have skin replacements. But we have made progress in getting FAA approval to repair ruddervators with certain problems that would normally condemn them due to lack of FAA approved repairs. Our repairs are not a fix all but do fix four common problems:

- #1** Skin cracks emanating from the three torque fitting holes.
- #2** Skin cracks emanating from hinge area (typically caused from tooling damage)
- #3** Skin corrosion at the trailing edge and around three hinge screws
- #4** Skin trailing edge crack

Questions we commonly receive are:

Can any shop perform these repairs?

No, this is a FAA-approved Special Repair Process that is attached to our SRS FAA-Approved Repair Station certificate.

What is the typical cost of SRS' FAA approved repairs?

Typically it's \$1600. However, if we have to do a combination of repairs or must replace magnesium torque fittings there are additional costs.

Are there repair criteria and/or limits to repairs?

Yes, for example, in cases where the crack is five inches long and/or there are holes in the ruddervator from corrosion, the ruddervator would not be repairable.

How do I get my ruddervator evaluated?

The process starts when the customers repair shop emails or texts photos of the damage to SRS engineering.

Do we strip and treat ruddervators?

No, but we have teamed up with Wipaire in St Paul, Minnesota, which has a full paint facility. I don't speak for them but typically they charge \$600 to strip and evaluate a control surface. This gets paid whether your ruddervator passes or fails. If it passes the typical full cost is \$1400 for strip and paint in addition to the repair costs.

If the customer provides a ruddervator that does not have corrosion, can SRS perform repairs and touch up paint the repaired area?

Yes, we have a full paint shop. We paint hundreds of controls a year and were the best.

SRS Converts Ruddervators

First, I need to describe the three different styles of ruddervators:

1947-1956: Square tip counterbalance weight with narrow cord and no center spar

1957-1963: Square tip counterbalance weight ruddervators with a center spar

1964-1982: Pointy tip counterbalance weight with center spars

I'm sure people are looking for serviceable ruddervators and they are out there, but sometimes they find a good ruddervator and its not the right style for their airplane. Good news: SRS can convert 1957-1963 ruddervators to late model 1964-1984 style (and vice versa) by swapping out the weight covers and some structural parts. Typical cost is \$1600. Unfortunately, we cannot do anything with the 1947-1956 ruddervator because they have a different trim tab hinge with a narrow cord.

Lastly, I encourage ABS members to start a community ruddervator swap page. Post your available ruddervators on the ABS Member Forum and/or tell the ABS Technical Advisors. I think this would be a great help for the V-tail community. There are a lot of good ruddervators in hangar attics.

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