

by Tony Saxton, TTCF Technical Advisor

During an annual inspection on a TTCF member's T310R, a very competent shop found what its inspector felt was a reoccurring AD note time for exhaust repair due, as required by AD2000-01-16 paragraph (g). This is the final paragraph of the AD which, if certain conditions are met, requires a complete overhaul of the exhaust system. The situation was unique in that the exhaust had actually been completely overhauled in April of 2000 (about 1400 hr. ago) but was never actually "signed off" as being an initial compliance with the para (g) of the AD note, just a line item which noted the overhauled/replaced items with a sign off of compliance of other paragraphs of the AD note.

Because of the exhaust parts overhaul in 2000, the inspector felt that the intent at that time was to execute the initial compliance of paragraph (g) of the AD and therefore the exhaust would be due for overhaul again now according to the reoccurring portion of the AD which states:

"Thereafter at intervals not to exceed 2,500 hours TIS (Time In Service) or 12 years whichever occurs first."

Since it had clearly been 12 years since the work has been done, the inspector informed the shop and the owner that re-compliance was required. That is, the exhaust system would need to be overhauled again.

The owner consulted another source who claimed that since the initial 2000 exhaust overhaul was never actually signed off as compliance with the AD, paragraph (g) would not be due until the exhaust components reach 2500 hours and then at the next engine overhaul that happens after that. If this interpretation was correct, then nothing needed to be done to the exhaust system in order to sign off this year's Annual.

The owner consulted me and I agreed with the inspector's interpretation. The AD had been complied with in 2000, if not technically signed off, and was therefore due again now. Several other shop managers, as well as the Maintenance Inspector for the local FSDO agreed with this interpretation.

Both sides sought further clarification and the next contact was to the Wichita, Aircraft Certification Office (ACO) listed as the contact at the bottom of AD2000-01-16. As would be expected, 12 years after the release of an AD the person actually involved in the formulation of the AD had retired, so a current FAA associate was given the task of clarification. His response letter of opinion is printed below.

Now I admit that I've been wrong a number of times before (just ask my wife), but I felt I had a rather good handle on how this AD works and was just totally taken aback by this response. What followed was an opportunity to discuss AD note 2000-01-16 with the Wichita ACO office and ultimately I became much happier with the FAA's response.

This FAA response letter was a direct answer to the above-mentioned, rather unique, individual case and was not intended to be a sweeping change in the FAA stance on the existing AD note. The FAA understands that even today, many questions still exist concerning compliance with AD2000-01-16 and they have had a large increase in questions during the first part of this year due to the 12 year compliance time occurring.

FAA personnel feel that the AD has accomplished the safety intent, sighting the past 12 year historical evidence of no recorded in-flight fires, or post emergency landing evidence of exhaust failures as proof. They are, however, aware of the misunderstanding and ambiguity that exists within the wording of the AD and that subsequent Special Airworthiness Information Bulletin's (SAIB) have done little to clarify, and may have actually only clouded, the AD's intent. Additionally the FAA file has numerous valid comments from the public that had been received after the closing of the comment period for the AD and even after the AD note release.

So to paraphrase the FAA: "because of the success of the AD we are not intending to make any significant changes to the current AD and are only investigating methods to clarify the intent of the existing document".

So AD2000-01-16 stands exactly as written. We now have some clarification on paragraph (g) compliance and should expect further clarification of the AD as other questions arise.

All in all this is a very good thing.

Good Morning Tom;

Per our telcon for your reference here is our position at the ACO.

As I mentioned, the goal of Paragraph (g) of the AD was and is to be sure we are removing, inspecting and repair/replace the exhaust system from the slip joints aft to all turbocharger components at no later than a 2500 hours time in service (TIS) interval. That was and continues to be a vital aspect of this AD. Time in service on the components is the key, and 2500 is all that we want.

The 12 years was a cap put on the AD for which I find very little documentation in our AD file to substantiate the 12 years itself. The goal there being to close out the action of starting the clock on the next 2500 TIS on the exhaust system inspection remove and inspect cycle and get it started. If for example a person came to us with no logs or poor recording of exhaust system component time, the 12 year interval closes the door and forces the action. Perhaps weak, but in there. Perhaps we should have stated: thereafter at intervals to not exceed 2500 TIS (for the oldest exhaust system component) remove/inspect repair/replace... etc.

The logs you provided are an excellent form of documenting the time and replacement time of the exhaust system components and their times.

As I mentioned, the references to engine overhauls, muddies things up a bit in the AD as well. This has unfortunately permitted people to take liberties with the AD as they have NEVER "overhauled" their engine(s). Not a good perspective and one which will come back to bite us all.

As you know, there are a host of other text versus 'meaning' issues which we have attempted to address via SAIB. Some think the SAIB's didn't help either. I'm going to try and pursue some clarity to those things people have repeatedly contacted us to discuss or get a position on. No promises, however, we must make every effort to keep this AD in top notch condition to ensure we continue to meet an acceptable level of safety on these exhaust systems for which there is no type design solution from Cessna.

Regards
Jeff Janusz
Sr. Propulsion Eng.
Wichita Aircraft Certification Office
316.946.4148