

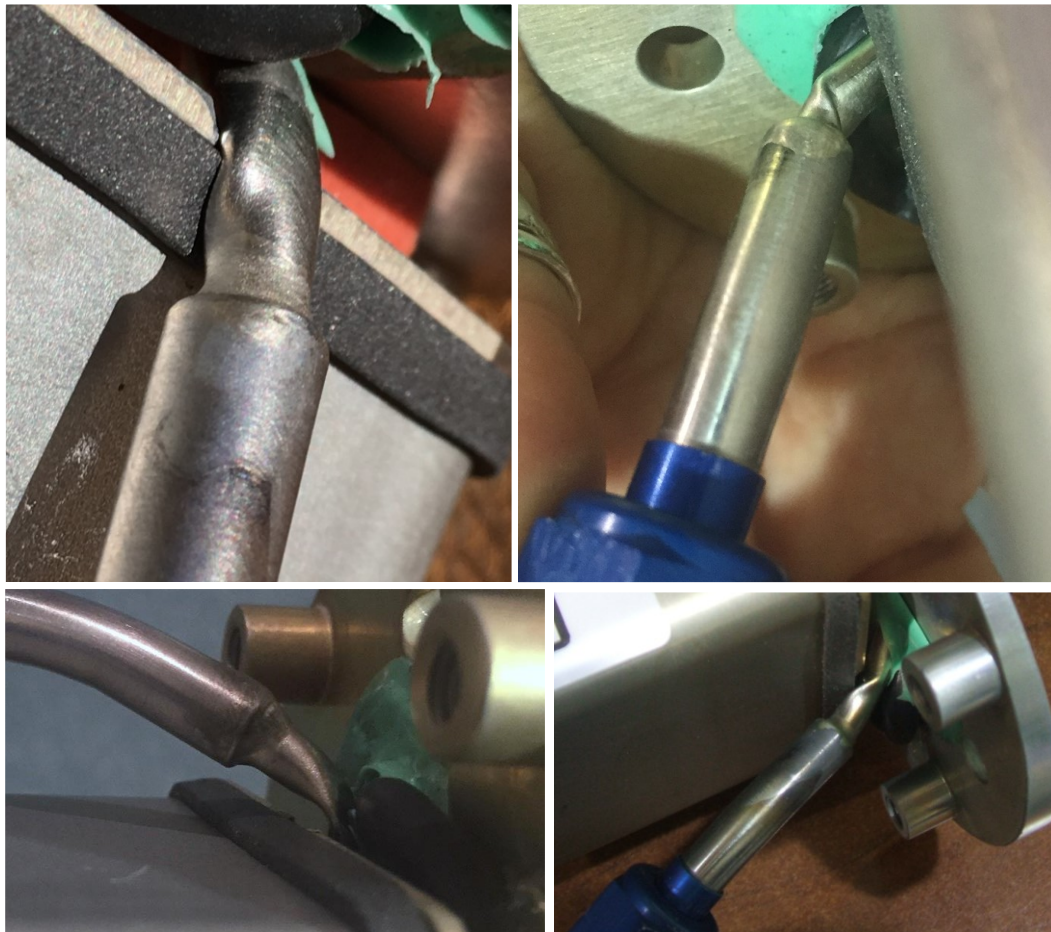
SUBJECT: Damaged Pitot/AOA Probe Ram Air Pneumatic Tube
Aircraft Type: Eclipse 500 and Eclipse 550®
Effectivity: All Aircraft
Applicability: All Aircraft

1. SUMMARY

Eclipse Aerospace, Inc. (EAI) is continuing to see Pitot/AOA probes with damaged ram air pneumatic tubes. The frequency of the issue has been decreasing since the last revision of this SIL in March of 2018. However, a recent occurrence of ram air tube damage and B-nut thread contamination has prompted us to revise and re-issue this SIL.

2. BACKGROUND

Several Pitot/AOA probes have been returned to EAI with damage to the ram air tube. The damage ranges from moderate to severe. The photos below are typical examples of the damage seen.



All of the damaged tubes in these photos are un-serviceable.

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Damaged ram air tubes are not repairable or replaceable. The Pitot/AOA probe must be replaced. A damaged ram air tube causes the entire probe head to be scrapped when the probe is sent to the manufacturer for repair.

Probes received at EAI with damaged ram air tubing will be subject to additional charges over and above the standard overhaul and repair prices.



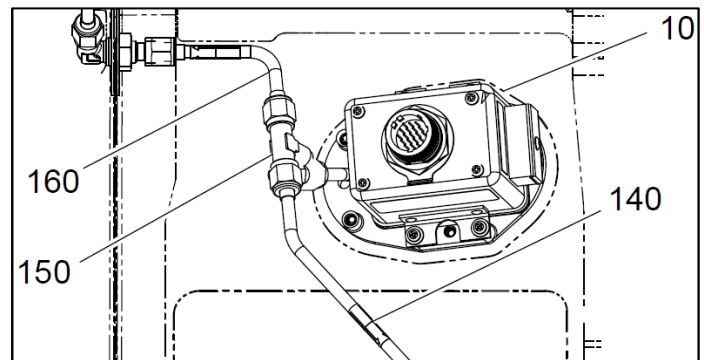
The B-nut in the photo is part of a probe that was recently received by EAI. The contamination on the threads appears to be Teflon tape.

AC 43.13-1B § 8-38 f. warns against using Teflon tape on fuel lines. The same warning applies to flared tubing lines in other systems. Never use Teflon tape or other types of thread compound on any Pitot or static lines. The tape can come between the flare and fitting which will cause leaks. Tape and thread compound can also get into the plumbing and contaminate the air data computer.

3. ECLIPSE ACTION

EAI recommends using best shop practices to always support the b-nuts and union on the Pitot tube plumbing while torquing or loosening the b-nuts connecting the pitot plumbing to the Pitot/AOA Probe.

Several mechanics have found it useful to disconnect the t-fitting (item 150) from the pitot lines (items 140 and 160) versus disconnecting the ram air tube from the t-fitting. Using this technique puts less strain on the ram air tube.



If the t-fitting is removed with the probe it should be removed from the old probe and re-installed on the new probe on the bench. It is part of the plane, not the probe.

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An example of the foam packing block mentioned in AMM 34-10-10-041-801, Pitot/AOA probes – installation is shown below. This should be installed any time the probe is off the aircraft.



4. SUGGESTED OPERATOR ACTION

Owners, operators, and maintainers should pay particular attention to the delicate nature of the ram air pneumatic tube on all Pitot/AOA probes during removal, installation, and shipping procedures to ensure damage does not occur.

Before removal of any Pitot/AOA probes we recommend checking the condition of the ram air tubing with a flash light and a mirror. If the tubing is found to be damaged we recommend documenting the damage with photos before removing the probe. We also recommend inspecting all Pitot/AOA probes before and after installation to ensure the probe is free of damage.

5. EXPORT CONTROL

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