

Subject: [c-a] Electric Pitot Tube Installation...*Resending this without the

Date: Sun, 29 Aug 1999 23:50:45 -0400

From: "Alpine Racing, Inc." <AlpineRacing@email.msn.com>

To: "Canard Aviators" <canard-aviators@canard.com>

attachement*

Sender: owner-canard-aviators@betaweb.com

Precedence: bulk

[The Canard Aviators's Mailing list]

Hey folks,

I am sending this again due to the fact that the first time I sent a large attachment of my testing photos (and this is a no no on this board "sorry")...so, here is the original message if anyone is interested. I also added the type and name of what I used (new information which is below the original message).

If anyone is interested, I can send separately the photos.

*****ORIGINAL MESSAGE*****

I remember a thread quite some time back about successful and non-successful installations of heated Pitot Tubes in Composite Structures (Can you say M ELT?)

Well...I have just completed testing of various materials (Phenolic Rod, Phenolic Sheet, etc...)and seem to have "landed" on a Aluminum type backing on a type of Fiberglass weave (looks like but is not asbestos). This material (sorry, it's at my hangar and I can't remember it's name)... is resistant up to and including over 2,000 degrees F.

It is very light weight and thin. I conducted a test (pictures enclosed) with the pitot wrapped in only 2 layers completely immersed (tight fit) in blue foam and results were outstanding!... No effect, no melting of any foam, etc.. The pitot reached a static temperature (directly hooked to a separate 12V battery) of just over 400 degrees F.

I will have (if anyone has interest) pictures of the final installation in the nose of N7VN.

Please don't "zap" me with "why I want to fly in icing type questions"...I don't.

I will, however be able to have pitot heat in my composite bird though...now, if we could just keep it off the structure...

Hope this helps those interested...

Gary E.

Long-EZ N7VN

ARB

*****NEW INFO*****

Also, the material I used in the test is named:

Aluminized Heat Barrier (by a company name of COOL IT Thermo Tec) Part #14001 which only came in a 10 sq. ft (36"X 40") quantity (way too much).

This is a flexible metallic insulating sheet/shield which is very thin and is easily cut with common scissors. It says on the package: 2000 DEGREES RADIANT HEAT REFLECTION for use on Cars, Trucks, Marine, Aircraft and Industrial applications, and is for use on: Catalytic Converter, Turbochargers (hot), Air Intake System, Ignition System, Fuel and Brake

Lines, Underhood and Undercarriage, Etc, Etc....

The product Looks like "a kind of spacey aluminum blanket only very thin" with a fibercloth (looks like asbestos but is not) white backing. I measured and cut to fit the pitot area, then wrapped (in the test only two times around) the material around the exposed surface of the pitot and fastened together. Then I inserted the whole unit into the nose (or wherever you are putting it). I removed extra foam from this area to enable it to fit and then mounted whole unit.

I purchased this product from Aircraft Spruce (don't recall their part number, but if anyone needs it I can look it up).

Hope this works as well for you as it did for me.

Best Regards,

Gary E.
ARB

[illegible]