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SEPT/OCTOBER



Dakota Territory Air Museum's P-47 Update
by Chuck Cravens

AIRCORPS AVIATION



This very large passageway is the carburetor and intercooler air intake duct.



The strangely shaped structure is the main cool air intake to the intercooler. The upper end in this image leads forward to the air intake at the bottom of the cowl. The smaller opening on the right leads back to the air cleaner just ahead of the turbine. The large opening face down on the table is where the duct attaches to the intercooler.

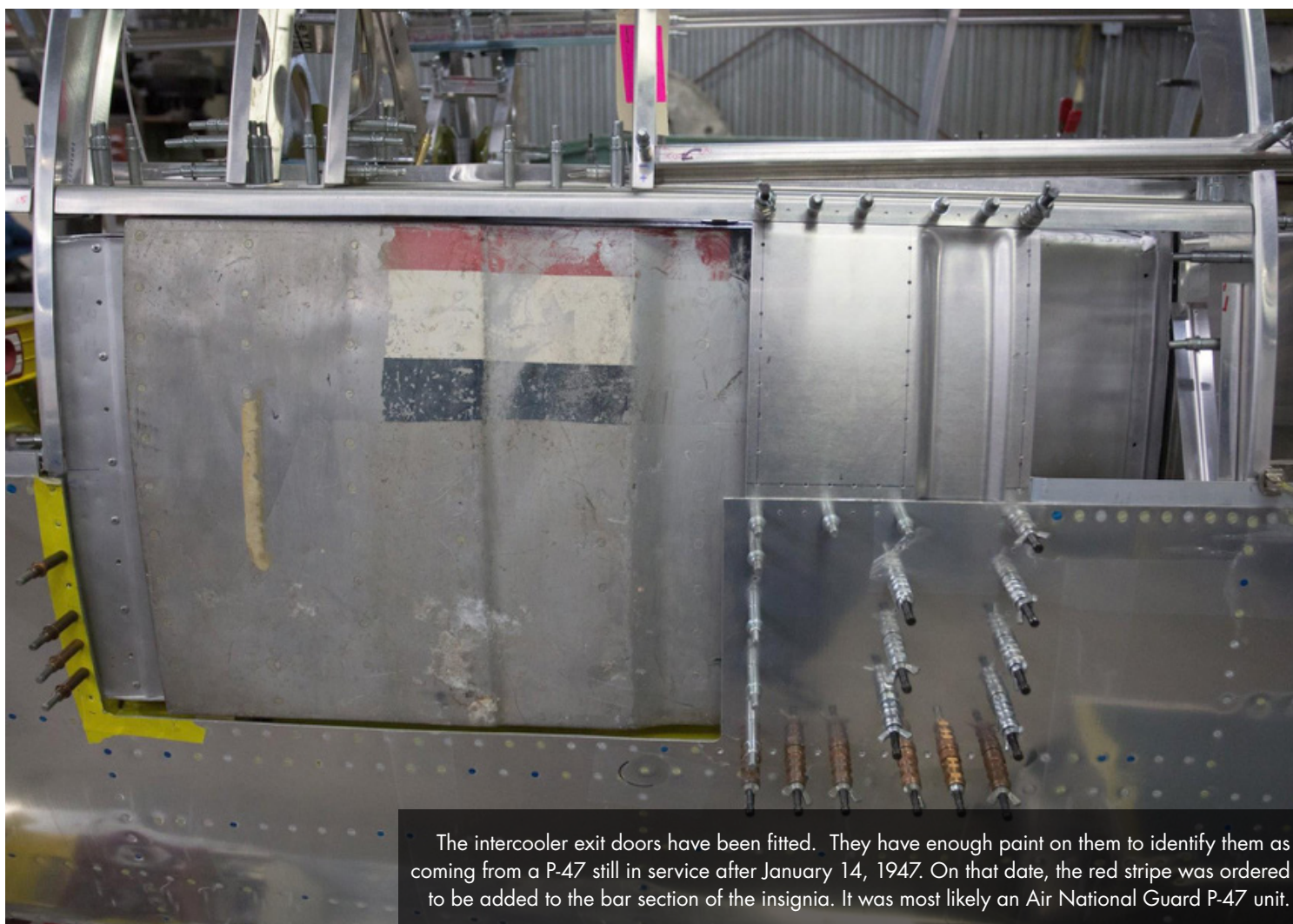


Update

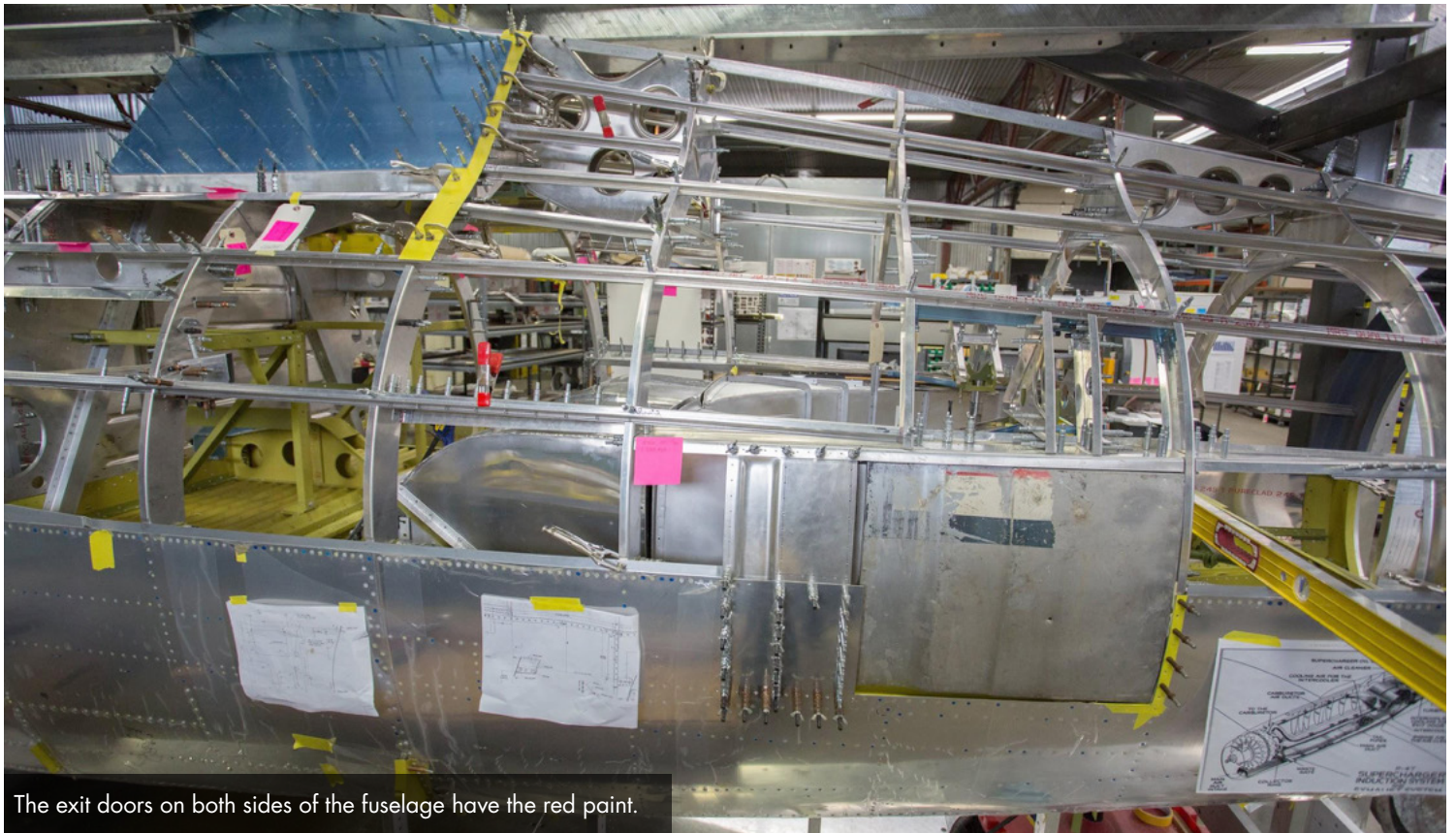
A restoration like this one requires repeated fitting, trial assembly, disassembly for painting, and eventually permanent reassembly. This month was all about details as the guys take care of final touches before disassembling the upper fuselage for deburring and paint. Once this is finished, the next step will be permanent reassembly.

Ducts, Turbos and Intercooler

We've shown many images of the ducting and intercooler because they are part of a very complex system that will be made functional in this P-47 restoration. The turbo-supercharger system was responsible for the stellar high altitude performance of the Thunderbolt.



The intercooler exit doors have been fitted. They have enough paint on them to identify them as coming from a P-47 still in service after January 14, 1947. On that date, the red stripe was ordered to be added to the bar section of the insignia. It was most likely an Air National Guard P-47 unit.



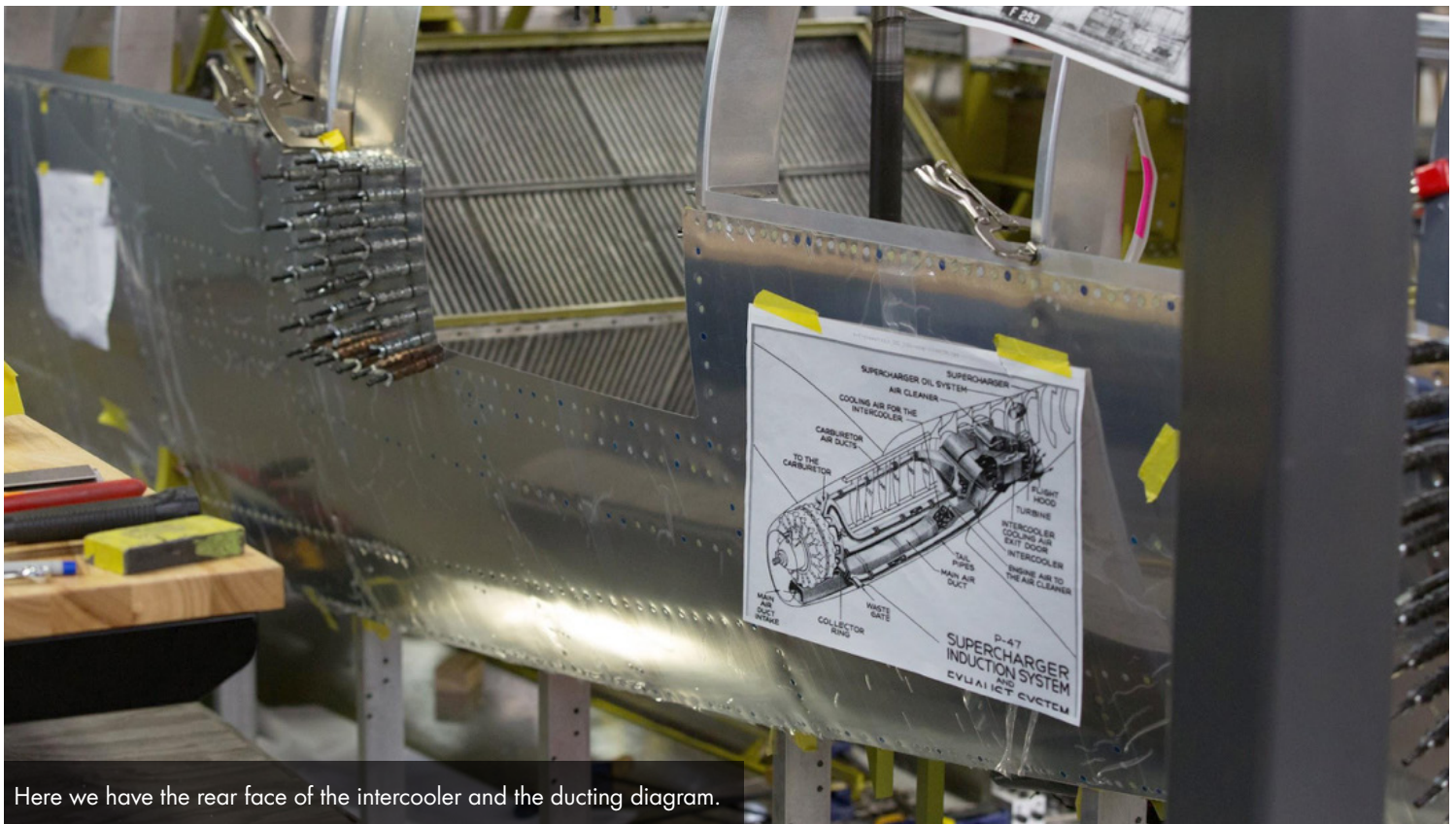
The exit doors on both sides of the fuselage have the red paint.



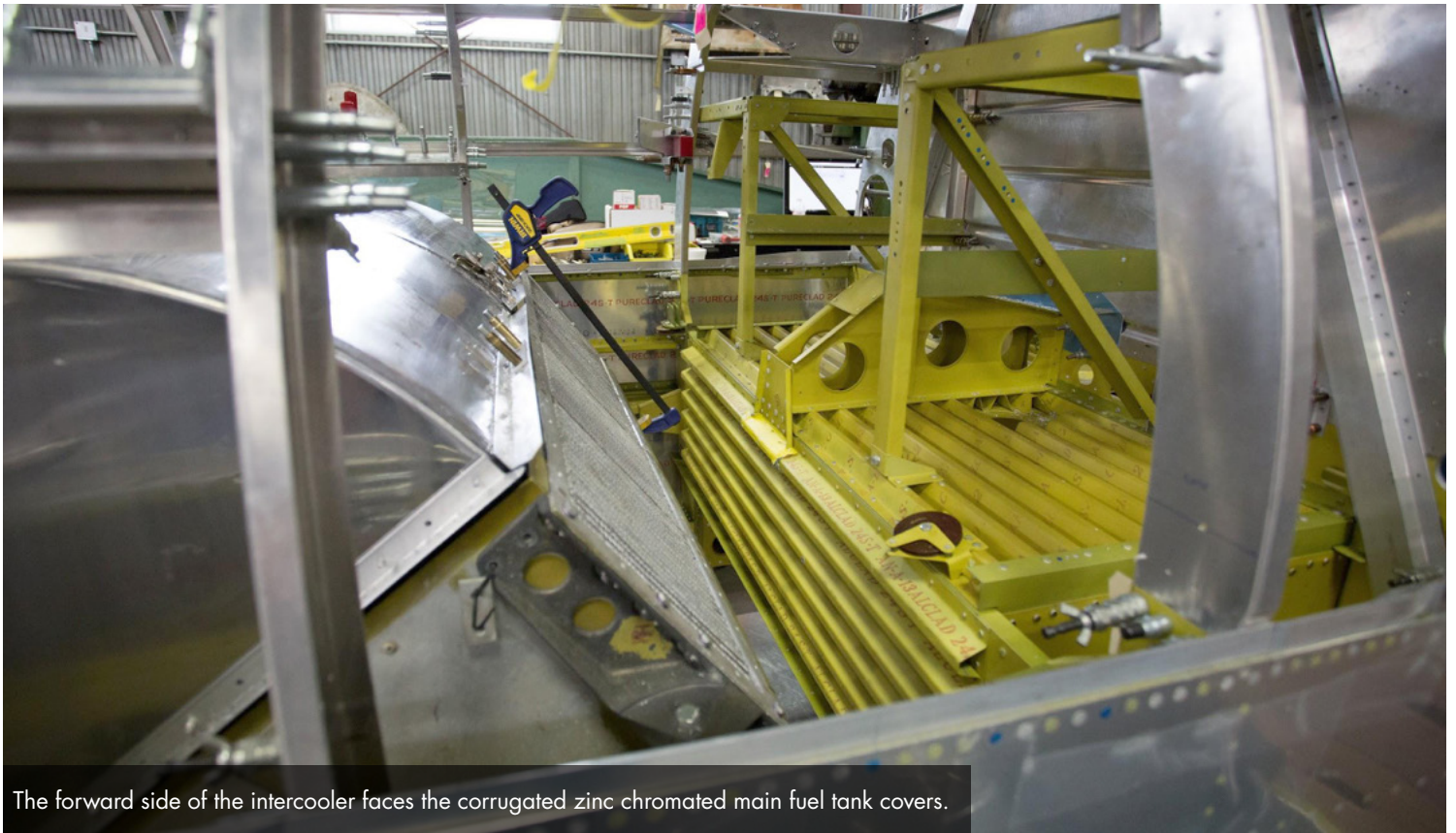
The image of Randy, Chad and the entire forward fuselage from tail cone joint to the firewall gives an idea of the complexity of this restoration.

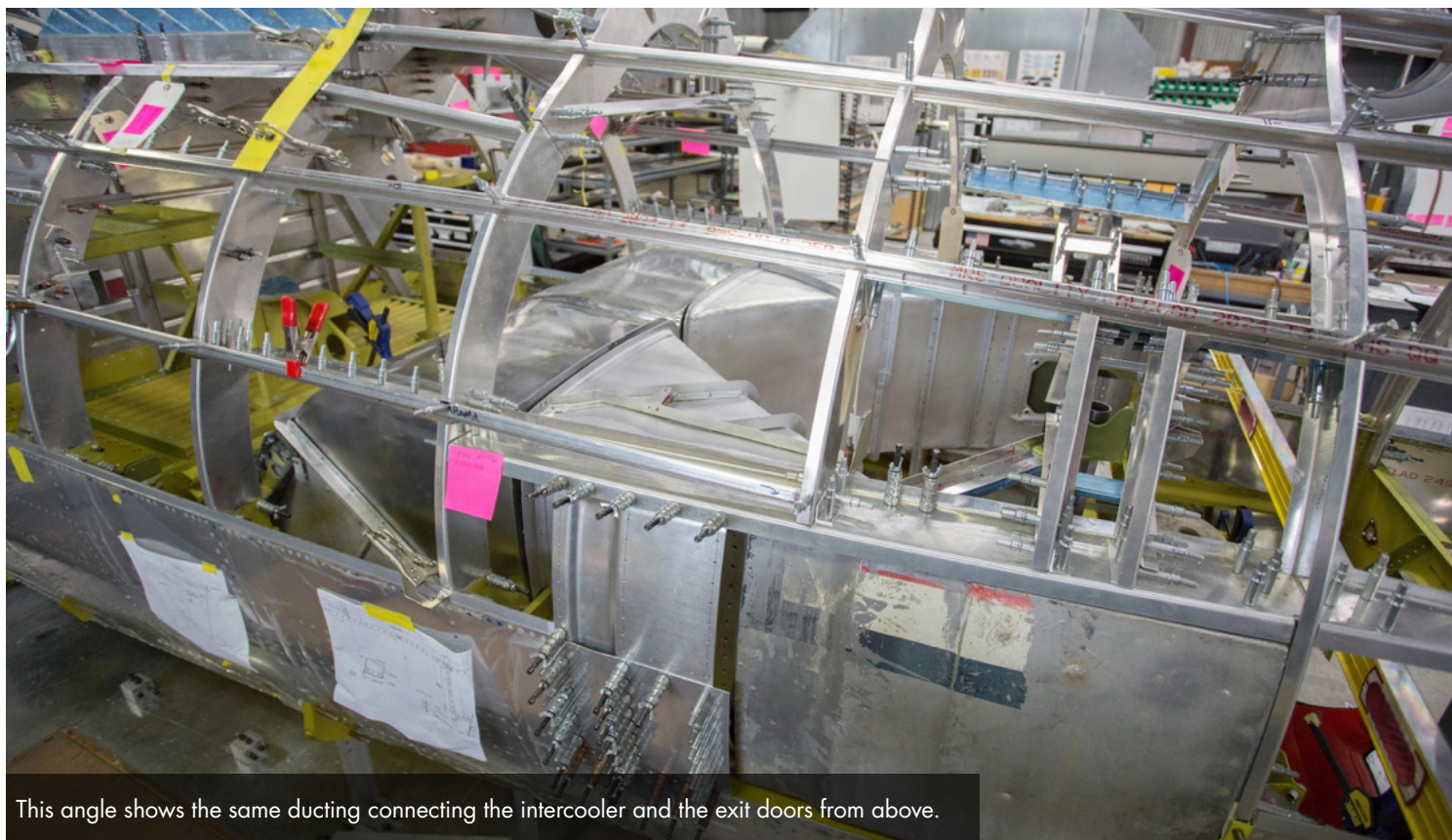


The right side of the fuselage clearly shows how Republic designed the assembly to be done in upper and lower halves. The completed, permanently riveted lower half contrasts sharply with the unskinned structural members of the upper portion.



Here we have the rear face of the intercooler and the ducting diagram.





This angle shows the same ducting connecting the intercooler and the exit doors from above.



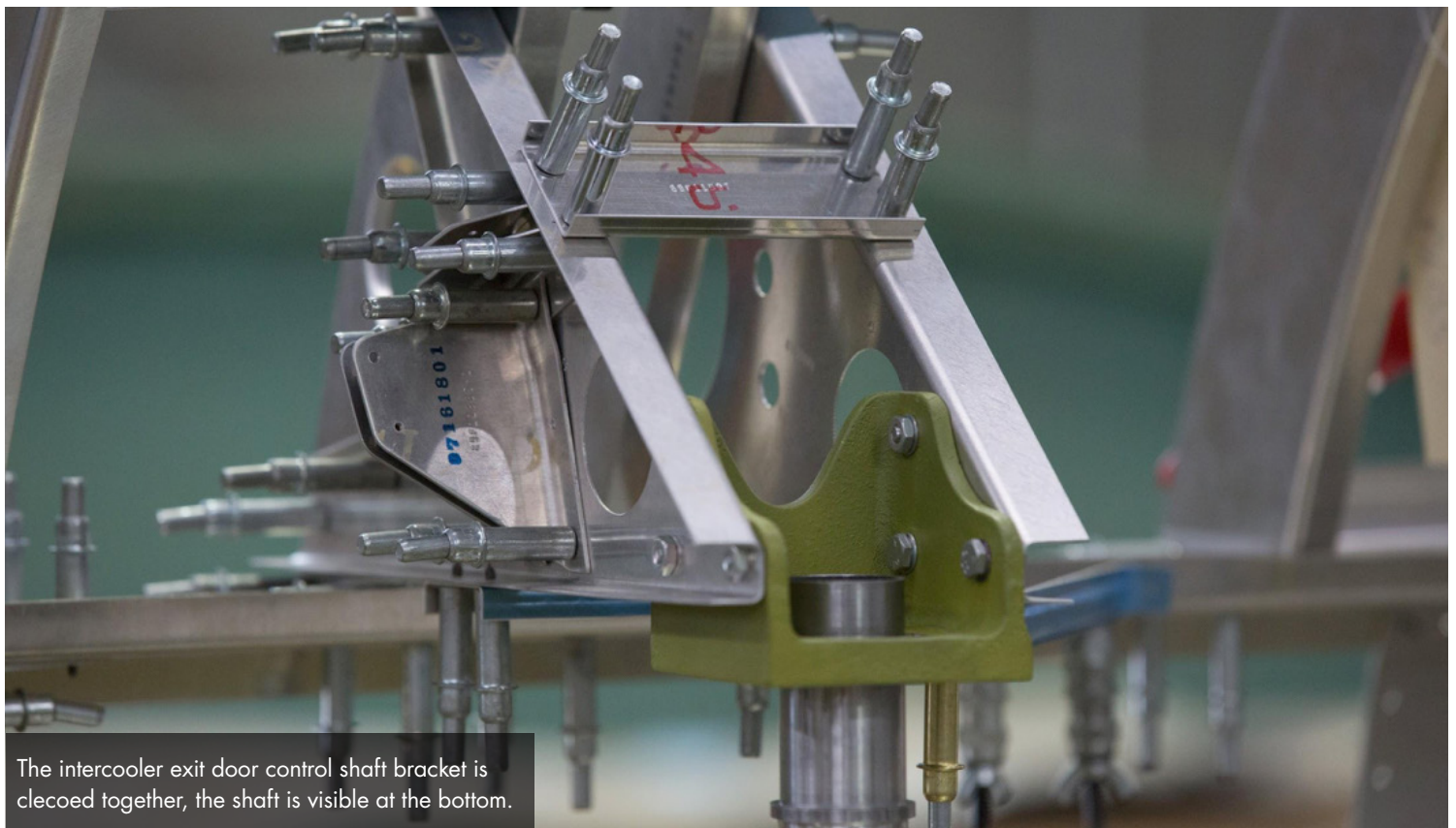
The turbo-supercharger housing section is remarkably large, like most P-47 parts are!





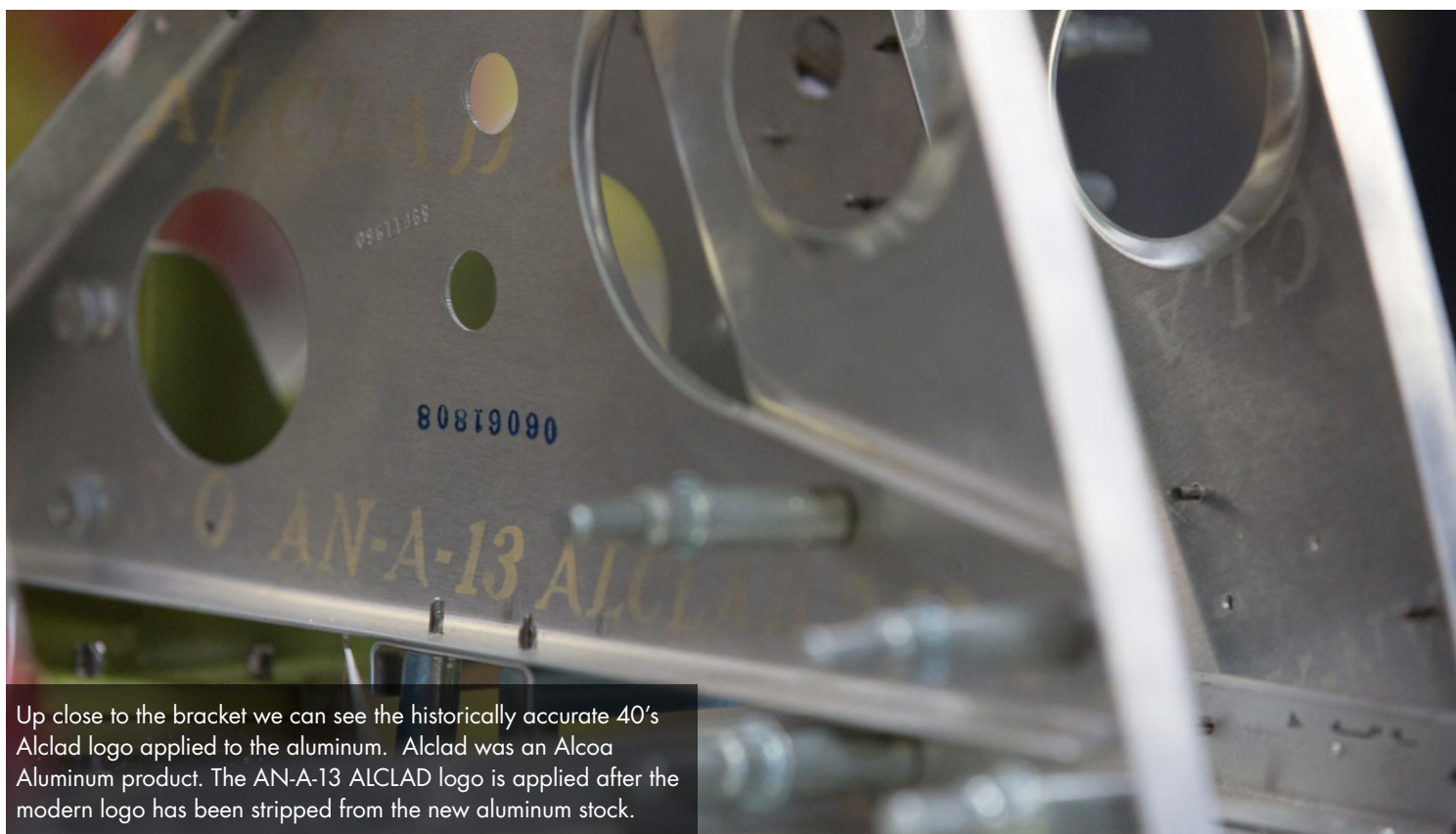
Fuselage Structure Details

Mounts, brackets and skin sections were the emphasis as the upper fuselage was readied for disassembly.





The same bracket viewed from the exterior side of the fuselage.



Up close to the bracket we can see the historically accurate 40's Alclad logo applied to the aluminum. Alclad was an Alcoa Aluminum product. The AN-A-13 ALCLAD logo is applied after the modern logo has been stripped from the new aluminum stock.





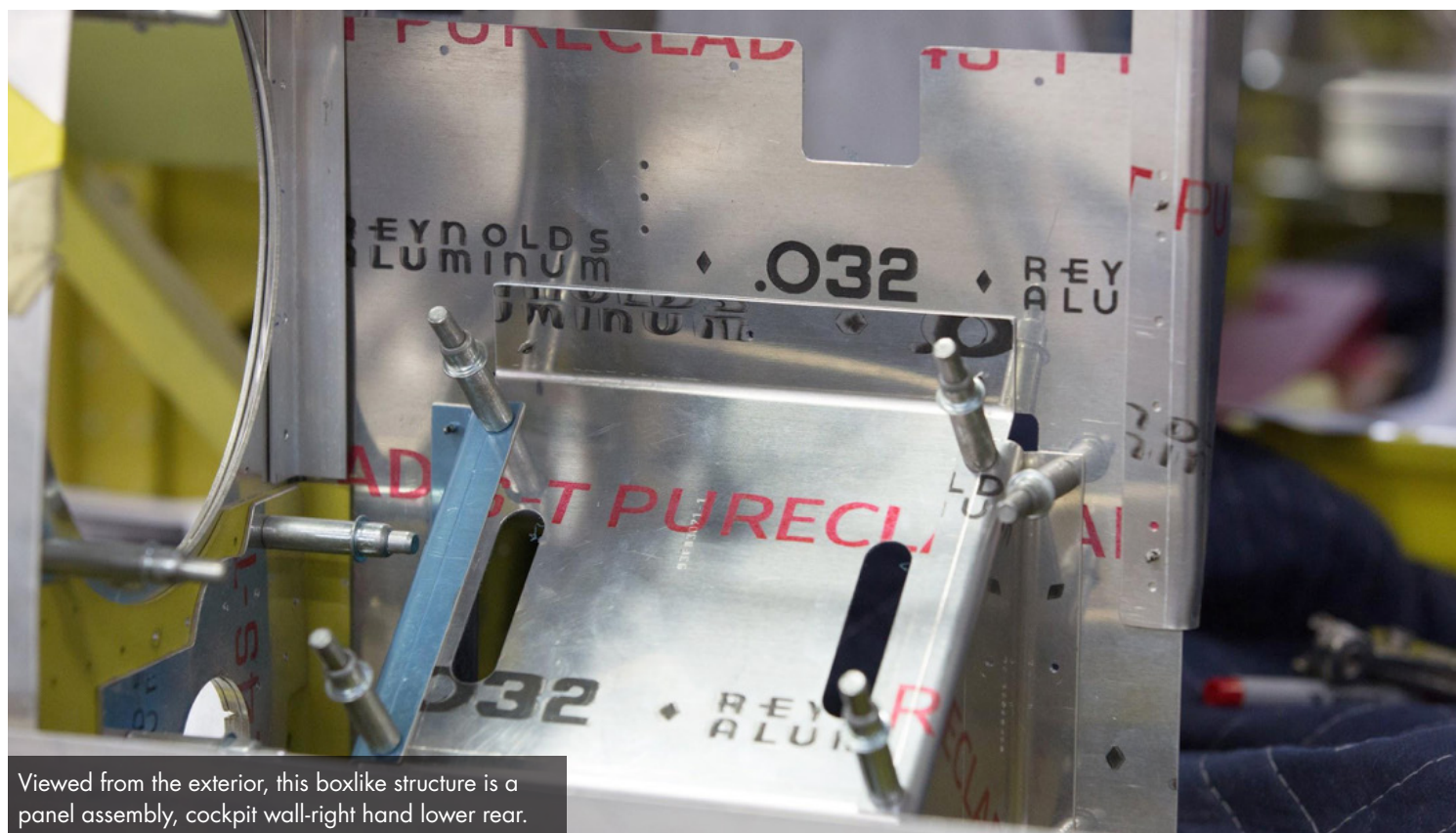
This is an upper fuselage baffle at the upper cross-tie station.



The part number is clearly stamped on this casting. It is the support assembly for the pilot's hydraulic controls.

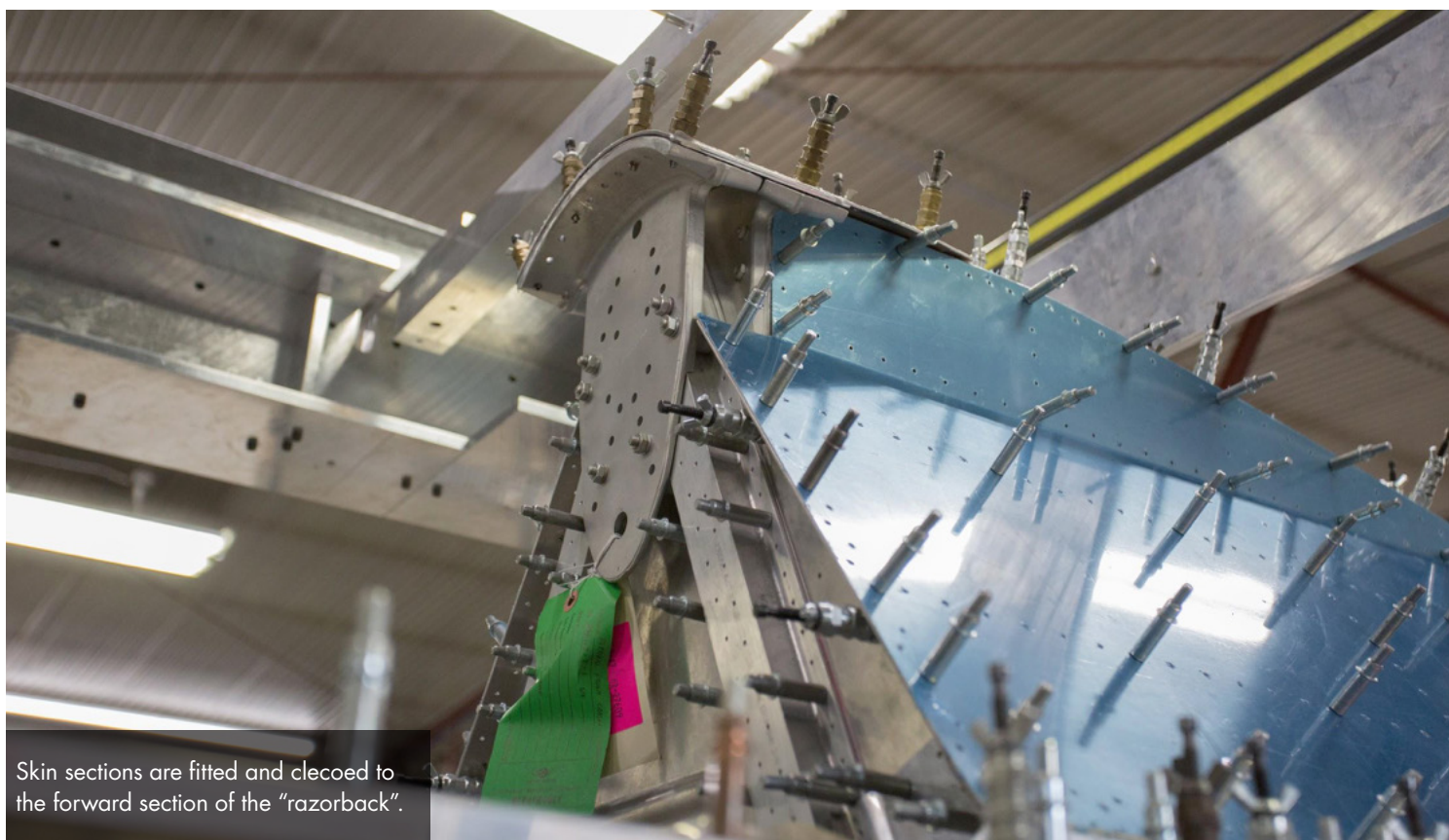


The inspection stamps attest to the bolts having been properly torqued on this section of the lower firewall. Each inspection stamp that would have been used in the Evansville plant is faithfully duplicated in the restoration.



Viewed from the exterior, this boxlike structure is a panel assembly, cockpit wall-right hand lower rear.





Skin sections are fitted and clecoed to the forward section of the "razorback".



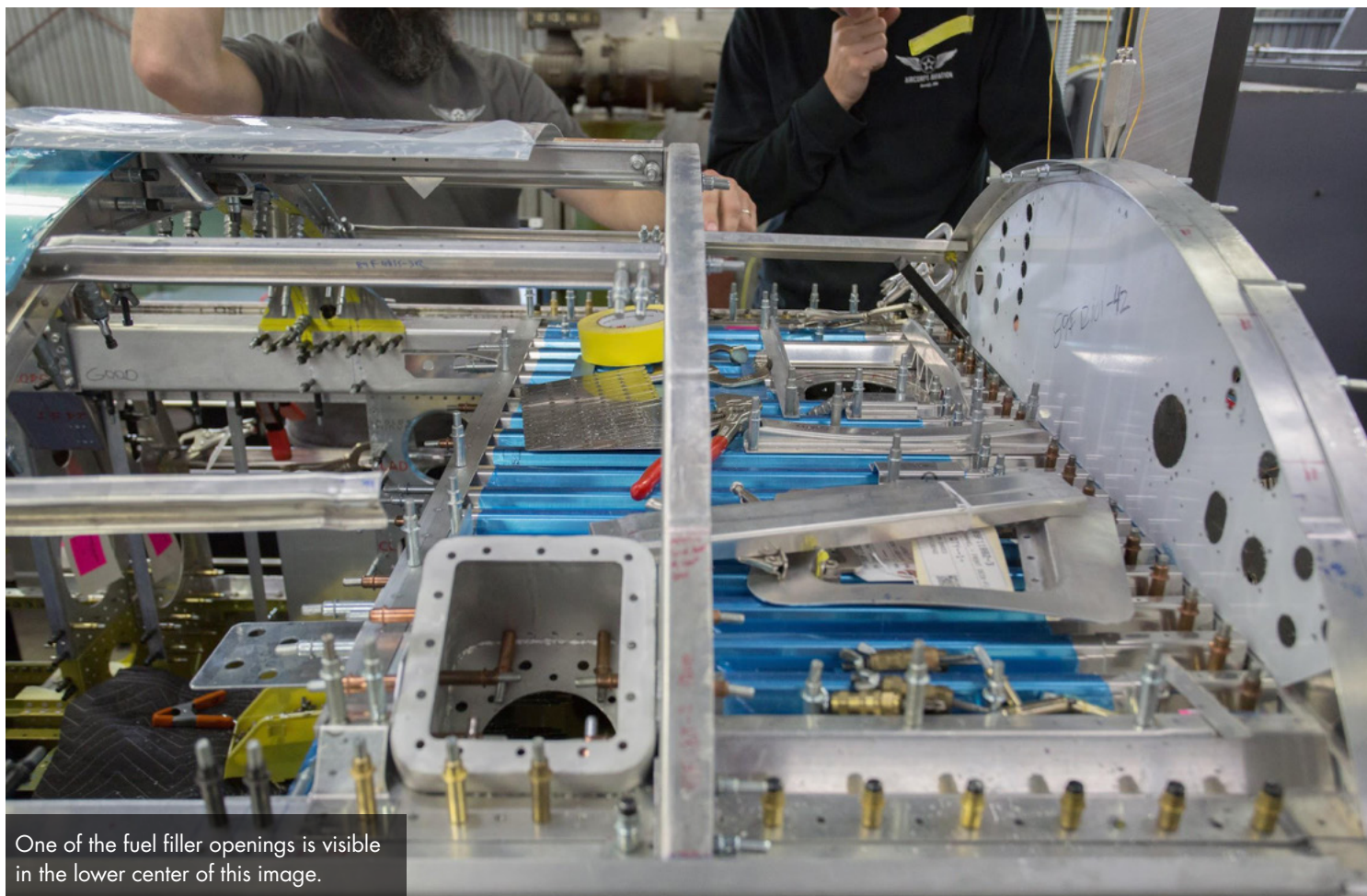
The opposite side shows in this photo. The triangular structure with the forging at the top is the rollover protection assembly.



Chad works on a piece of skin located on the upper fuselage in front of the cockpit.



Chad fits the skin to the forward top fuselage frame.



One of the fuel filler openings is visible in the lower center of this image.