

Airframe Demagnetizer

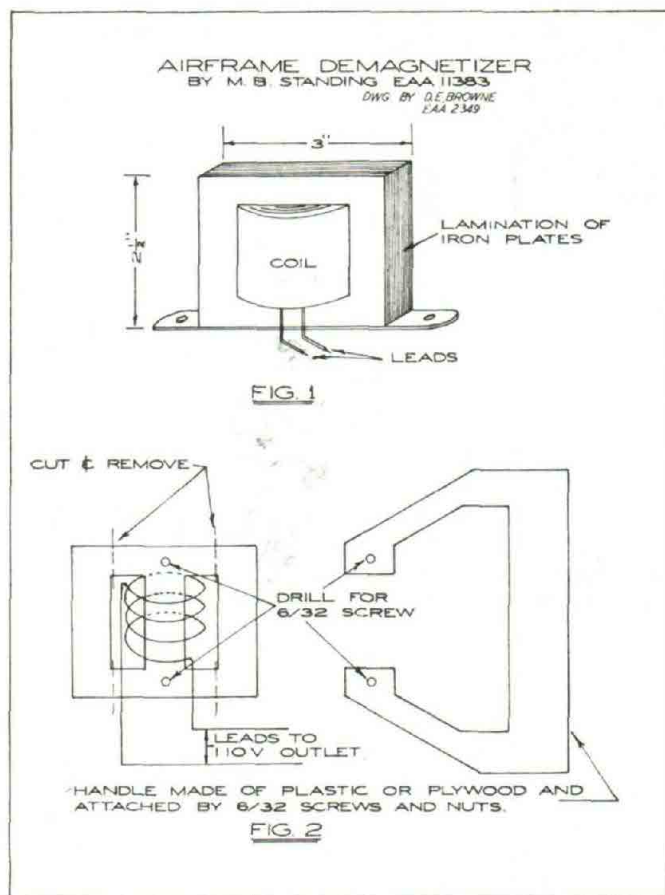
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WHEN INSTALLING the compass in my Stits "Sky-coupe", I found so much residual magnetism in the cabin area, as a result of welding the 4130 airframe, that the compass would point only in a single direction. An expenditure of 90 cents for a surplus TV choke provided material from which to construct a simple demagnetizer.

Fig. 1 shows the external appearance of the choke before alterations. Fig. 2 is a schematic drawing of the general shape of the laminated iron core and the copper coil that is wound around the central core. The electrical resistance (DC) of the coil measured 100 ohms. This would give a flow of about 0.8 amps when connected to a house circuit.

To convert the choke for demagnetizing work, it is necessary to remove a portion of both outside cores. First, however, drill through the plates and install two brass machine screws to keep the core laminations from separating. Cut the outside cores at the location shown and discard the outside pieces of laminated cores. The shape of the remaining core will now be that of the letter H with the coil around the center section. File any sharp corners. Connect the leads to a suitable length of electric wire and a standard electrical plug. Add a wooden handle if you wish.

To use the demagnetizer, move it slowly back and forth along the desired section of airframe while it is connected to the 60 cycle/110 volt house circuit. Position the unit so that the airframe tubing acts to complete the magnetic flux path emanating from one end of the H. Do not turn off the current while the unit is against the airframe. To do so will result in the airframe being strongly magnetized at that point.



I suggest that all welded clusters and connections be tested for magnetism before applying any final cover. This can be done by bringing a compass close to the weld and noting any strong deflection of the needle. Believe me, it would pay to demagnetize the bare airframe before covering than not to do it and run the chance of having to do it after the fabric and paint is on. Ⓐ

INFECTIOUS RYAN S-T . . .

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an hour of this, one was ready for the little men in the white coats.

While all of this is going on, my poor fiancée in Washington is wondering when I am going to get this flying machine licensed and sold so that we can be married and have a few pennies in our pocket to permit living like human beings rather than flying bums (similar to ski bums). Soon, a month to be exact, I flew it over to a field in New York state near Palen's place and had Ralph Haskins license the airplane as he was quite familiar with it by now. A week later it was ready, and I hitch-hiked a ride over to pick it up and flew it back to New Haven.

It wasn't long before I found a buyer. The troubles, or should I say heartaches, were not over yet. By this time it was cold November, and the temperature took a nose dive on the day before the new owner was to take delivery of the airplane. A friend and myself propped that thing for about three hours and only got two or three "putts" and that was all! There was a ground heating unit on the field, but all that I had in my pocket was about two dollars and it would cost at least five to rent the unit. There I was with a beautiful crisp clear day, a

light breeze, a full fuel tank and an "elephant-size" desire to fly her for the last time. What a revolting situation!

The next day was just as cold and the new owner could afford to rent the heater, which he did. Pretty soon it was purring like a cat. The winds on this fateful day were 25 knots and gusting to 35, but I just had to fly it once more before the papers were signed. An hour later the papers were signed, the airplane and its new owner headed out over the horizon till I could see them no more, and I went back to my drawing board at the office where I work.

In two days, all my bills were paid, I owned a car for the first time in my life, put some food in the refrigerator, bought some nice new clothes, had a couple of dollars in my pocket, time on my hands, and a most wonderful girl 300 miles away waiting for me to come fetch her.

Today I have, for all the waiting, the finest wife a fellow could ask for. She loves to fly and hopes, as I do, that someday we will be financially able to have an airplane again. In the meantime, however, what with trying to build up a home, I now have as a hobby the fascinating experience of being historian for the very Ryan, and its brothers and sisters, that I actually lived with for five years. Ⓐ