

SERVICE BULLETIN 150 — MANDATORY

SUBJECT: Fram fuel filter assembly (P/N 332-0341-101)

APPLICABILITY: All Glasair II, II-S, Super II and III aircraft, as well as any Glasair I aircraft retrofitted with the Fram fuel filter assembly.

DISCUSSION: While replacing the fuel filter element on Stoddard-Hamilton's Glasair Super II RG demonstrator, the mechanic noticed a small amount of rust in the very bottom of the bowl. This rust was presumably caused by a very small amount of water that remained trapped in the bowl below the level of the drain outlet for an extended period of time. If allowed to progress unchecked, such rust could eventually compromise the integrity of the bowl, causing a potentially dangerous fuel leak.

It is extremely unlikely that this situation poses imminent danger to any aircraft in the Glasair fleet. The bowls are nickel plated for corrosion resistance, and the surface rust that was discovered would have required many years of unchecked progression to breach the wall of the bowl. The aircraft on which the problem was discovered had been flying for more than seven years and had logged approximately 1,700 hours in service at the time of discovery. Nevertheless, the potentially serious consequences of undetected rust in the filter bowl dictates the issuance of this advisory publication.

REQUIRED ACTION: During each annual condition inspection **for the remainder of the aircraft's service life**, inspect the bottom of the filter bowl for any signs of rust. If rust is discovered, one of the following three actions is mandatory **before the next annual condition inspection**:

Option 1: **Replace the entire fuel filter assembly.** This is the simplest but most expensive option. (Unfortunately, due to restrictions imposed by the supplier, Stoddard-Hamilton is unable to provide the bowl as a separate part.)

Option 2: **Have the bowl stripped and re-plated.** If detected early on, any minor rust in the bottom of the bowl can be eliminated through bead blasting or some similar process, and then the bowl can be re-plated per MIL-C-26074B, Amend. 1, Class 2, Grade A. This option may not be practical for most owners, but if you have access to blasting and plating facilities, this may be an attractive route.

Option 3: **Seal the bottom of the bowl, eliminating the low spot.** As noted above, the appearance of rust in the bottom of the bowl is traceable to the fact that there is a very small area of the bowl that is below the drain outlet. Preventing water from collecting in this area will also prevent further rusting. A fairly straightforward way to accomplish this is to fill the bottom of the bowl up to the level of the drain outlet with a fuel-proof sealer such as Pro-Seal or Jeffco 9700.



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First, thoroughly remove the existing rust by sanding or wire-brushing the affected areas. If you wish, you might also apply a chemical corrosion neutralizer such as Corrosion X or Loctite Extend.

Then set the bowl upright on a table and fill it up to the level of the drain outlet with sealer. Do **not** level the bowl, but rather allow it to sit a slight angle due to protrusion of the drain fitting. As shown in Figure 1, allowing the sealer to harden with the bowl tilted a few degrees **away** from the outlet guarantees that the outlet is at the bowl's new low point. (Although it is difficult to see, the outlet is at the 12 o'clock position in Figure 1).

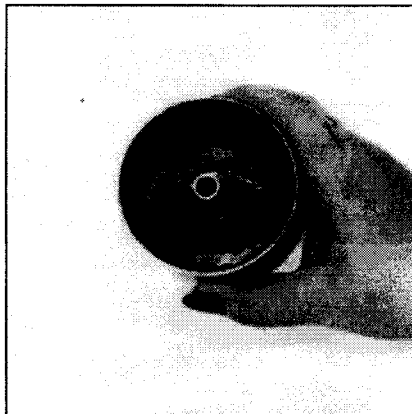


Figure 1

Note: Regardless of which option you choose to implement, the annual inspection requirement described on the previous page continues to apply indefinitely. To minimize the chance of this problem recurring, it is **recommended** but not required that Option 3 be carried out regardless of whether Option 1 or 2 is carried out

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