



## SAFETY DIRECTIVE 00017

**Date Released:** March 2nd, 2021 (Rev 1 – Corrected level of certification for ELSA for Steps 3-7)  
June 5th, 2020 (Initial Release)

**Date Effective:** June 5th, 2020

**Subject:** Fuel return line test

**Affected Models:** RV-12

SLSA Serial Numbers 12002 – 12074  
ELSA All RV-12 aircraft

**Required Action:** Verify that fuel return line is not blocked

**Time of Compliance:** Before further flight

**Labor Required / SLSA Warranty Allowance:** 5 minutes if fuel return line is not blocked.  
2.5 hours, followed by a 2-day cure, if AN832-4D bulkhead fitting requires replacement.

**Level of Certification:** SLSA: Owner (certification not required)  
**Steps 1, 2, and 8:** ELSA: Owner (certification not required)  
*Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.*

**Level of Certification:** SLSA: LSA Repairman Maintenance or A&P  
**Steps 3 through 7:** ELSA: Owner (certification not required)  
*Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.*

### Synopsis:

An RV-12 aircraft was recently found to have a blocked fuel return line, due to a manufacturing problem with the AN832-4D bulkhead fitting. This could cause interruptions of the fuel flow into the engine. A test should be run to verify that the return fuel line is not blocked.

### Method of Compliance:

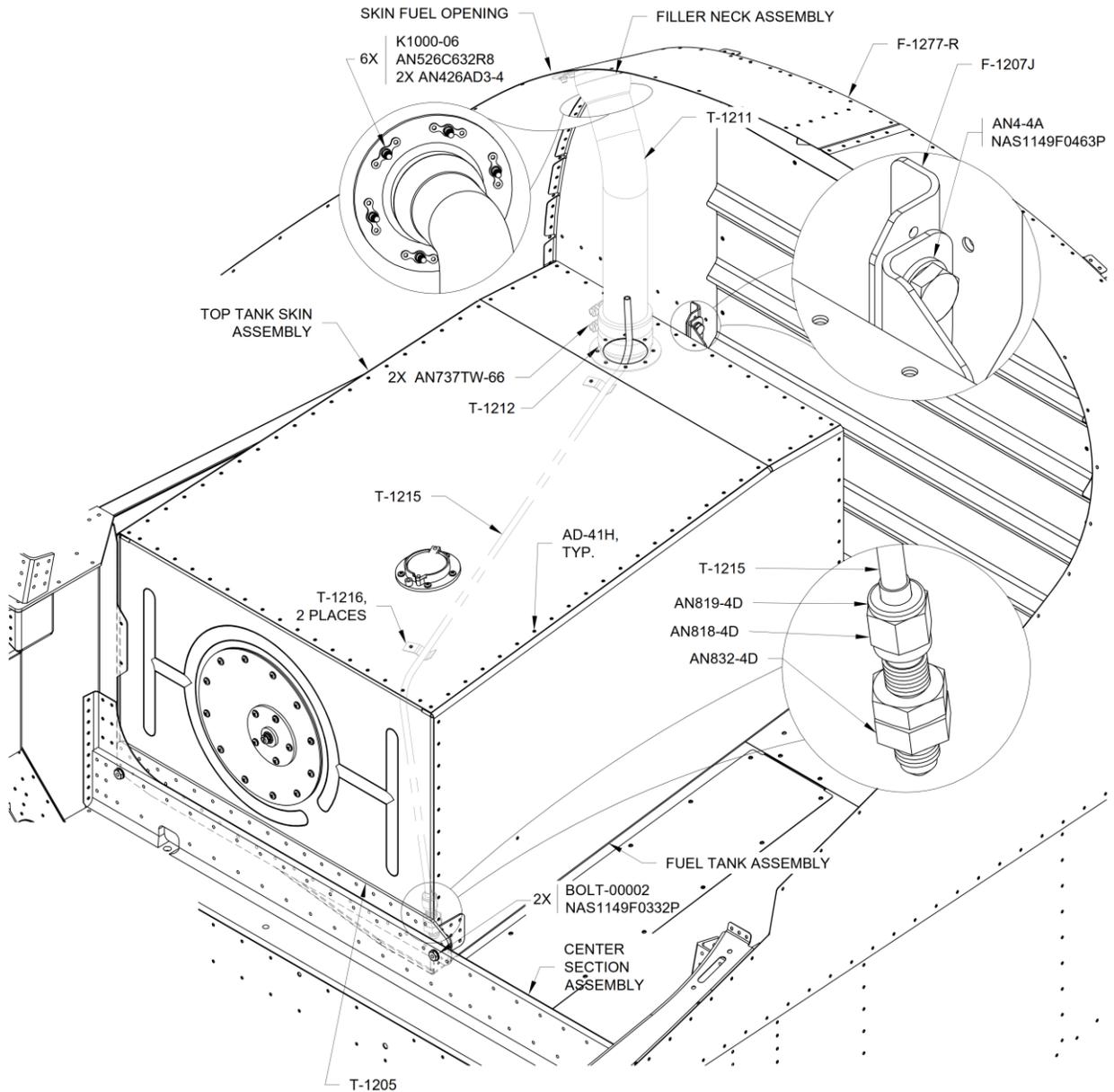
Step 1: Turn on the Master Switch. Ensure that the EFIS and the electric fuel pump are on.

Step 2: Verify that there is fuel flow through the system:

Open the fuel cap and watch/listen for fuel flowing out of the T-1215 Fuel Return Line, a small tube located inside the T-1211 Fuel Neck as shown in Kit Assembly Instructions page 37-07. See Figure 1, on the next page.

Check that the EFIS shows a positive GPH number.

If fuel is flowing through the system, then the fuel return line is not blocked.  
Skip Steps 3 through 7 and move on to Step 8.



**FIGURE 1:** RV-12 fuel tank, as shown in Kit Assembly Instructions page 37-07

**NOTE: The return line within the fuel tank may be filled with fuel.**

Step 3: If there is no fuel flow, then the AN832-4D bulkhead fitting must be visually inspected.

Remove the access panels from the fuselage lower skin.

Detach the fuel return line from the AN832-4D bulkhead fitting on the outside of the tank.

Look into the opening of the fitting.



**FIGURE 2:** AN832-4D bulkhead fitting with blocked opening

Step 4: If the hole in the fitting does not go all the way into the fuel tank – such as in Figure 2, above – then remove the fuel tank. Instructions can be found in the RV-12 Maintenance Manual, starting on page 13-5.

Choose one of the following two options for Step 5:

Step 5A: Contact Van's Aircraft and request a new AN832-4D fitting.

Replace the AN832-4D fitting per Kit Assembly Instructions page 37-02.  
Note that a two-day wait period is required to ensure that the sealant fully cures.

Step 5B: Disconnect T-1215 Fuel Return Line.

Drill 5/32 through the axis of the fitting into the fuel tank. Drill area indicated by red circle in Figure 3.

After drilling, remove all metal drill shavings from inside the tank.



**FIGURE 3:** Drill Area

**NOTE: Now is a good time to look over the general condition of the inside of the tank and check the fuel strainer at the tank fuel inlet. See MM Page 18-3 Service Schedule Checklist.**

Step 6: Reassemble and reinstall the fuel tank. Per page 13-6 of the Maintenance Manual, the installation procedure is the reverse of the removal procedure.

Step 7: Repeat Step 1 and Step 2 to verify that the fuel return line is no longer blocked.

Step 8: Make a logbook entry indicating compliance with service document per the requirements of the controlling authority/agency.

Place a copy of this notification in the back of the maintenance manual for your aircraft. Note the addition of this notification to the bottom of the Maintenance Manual table of contents.

If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and immediately notify Van's Aircraft, Inc. via email at [registrations@vansaircraft.com](mailto:registrations@vansaircraft.com).

Information regarding establishing/transferring aircraft ownership, registration and licensing is available at: <https://www.vansaircraft.com/qr/transfer-of-ownership/>