



Federal Aviation Administration

Memorandum

Date: April 22, 2024
To: Adam Gerhardt
From: Michael P. Jones, SO FSDO-11
Subject: N387E Accident Investigation.

Mr. Gerhardt,

At the scene, I observed N387E, a VANS RV9A situated near a power pole with the left wing partially torn off and entangled in the Poles Guide Wire. The aircraft marks on the ground show the attempted landing was in the direction of 174 degrees south in a grass field with notable bumps and small hills. The Fuel Selector was on the Left Tank and the Boost Pump was in the "ON" position with the Master Switch off. Along with the Left Wing, the fuselage left side and lower sections were severely damaged. The Three Bladed Propeller appears to have been damaged from the wing traveling towards the front on impact.

Met with Part-Owner, Mike Touchstone and followed him to the hangar. Found the right wing was apparently removed with a saw and lying next to the aircraft. Also noted, the fuel line from the Fuel Selector to the Boost Pump was dislodged from a Union Fitting. From the shape of the flare, it appears to have been drawn through the ferrule as the fuselage twisted. The connection "B-Nut and associated Ferrule could not be located, and no evidence of fuel stains was noted from the fuel line in the area. Discussed the two flights that occurred before the accident. Downloaded EFIS Data from the aircraft and provided to the NTSB for evaluation by email.

Relocated the aircraft outside of the Hangar and attempted to start by pouring fuel directly into the carburetor inlet hose. The starter Bendix would not stay engaged but we managed to get #1 and #4 Cylinder to fire a few times. Since the engine reportedly abruptly quit, our attention focused on the fuel. Mr. Touchstone states there both tanks were full before the first flight on Tuesday 03/26/2024 for .6 hours on the left tank. The next flight occurred Friday 3/28/2024 began with the flight on the left tank for approximately .5 hours.

Brought the aircraft back in the hangar and removed the air cleaner housing to access the fuel bowl. No fuel bowl. Checked the Fuel Strainer and found the strainer contained about 4 ounces of clean fuel. Removed the mechanical pump and found the pump was operational without leaks or blockages. Tested the Fuel Vent in the right tank and found the vent was clear. Unable to check the condition of the left tank due to impact damage to the structure. Checked the Fuselage section of the Fuel Vents and found the right vent blocked by what was believed to be impact damage from the accident. Bypassing that section both left and right vents were clear. Began removal of the Fuel Selector and upon loosening of the "B" nuts and although not loose, the amount of force required to loosen the "B" Nut led me to believe the "B" nuts may have been not torqued to specs. No evidence was found from the 1.1 hours of operation that a fuel leak in that area. The Fuel Line from the Fuel Selector output to the aircraft was found dislocated from

the union fitting on the forward end missing both the "B" nut and Ferrell. The mating threads on the union fitting did not appear damaged but the indications are the line was pulled from the fitting by the shifting of the fuselage impact damage. Important note: The Fuel Selector appears to be positioned where a low fuel quantity would not naturally flow from the wings. Received a copy of a drawing from VANS Aircraft that show the Fuel Selector Valve installation and found configured the same in the aircraft. The pilot states that the engine felt like it was losing power and at the same time he observed an annunciation to switch tanks. After switching tanks and turning on the Boost Pump the engine quit and the attempted emergency landing resulted in damage to the aircraft and injury to the pilot.