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Date: June 9, 2025
Subject: WPR24LA314, fuel flow bench test
Contact: Aaron Sauer, NTSB

The following is a summary and photos received by email from Aaron Sauer, of the following bench test examination that occurred on June 5, 2025, at the facilities of Continental Aerospace.

- Continental IO-550F
- Fuel flow divider
- Fuel injection assembly tubes for cylinder positions 1, 2, 3, 5, and 6
- Surrogate fuel injection assembly tube for cylinder position 4

EMAIL SUMMARY -----

Fuel flow divider body, fuel lines, and nozzles removed from packaging, then reassembled for flow/bench test. Reported as the No. 4 line was fractured and currently in the materials laboratory for failure analysis.

Flow/bench test 1: Flow divider tested with all six fuel lines and nozzles connected. Flow pressures were documented (see attached photograph - normal test). Test failed due to high pressure at the 150 PPH test point.

Flow/bench test 2: Flow divider tested with the No. 4 nozzle removed and the line open. Flow pressures were documented (see attached photograph - line failure test). Test failed due to low pressures at the 50, 100, and 150 PPH test points.

Flow divider disassembled and returned to original packaging.

EMAIL SUMMARY -----

Test bench (figure 1), Flow Test 1 (figure 2), and Flow Test 2 (figure 3):



Figure 1. Test bench configuration.

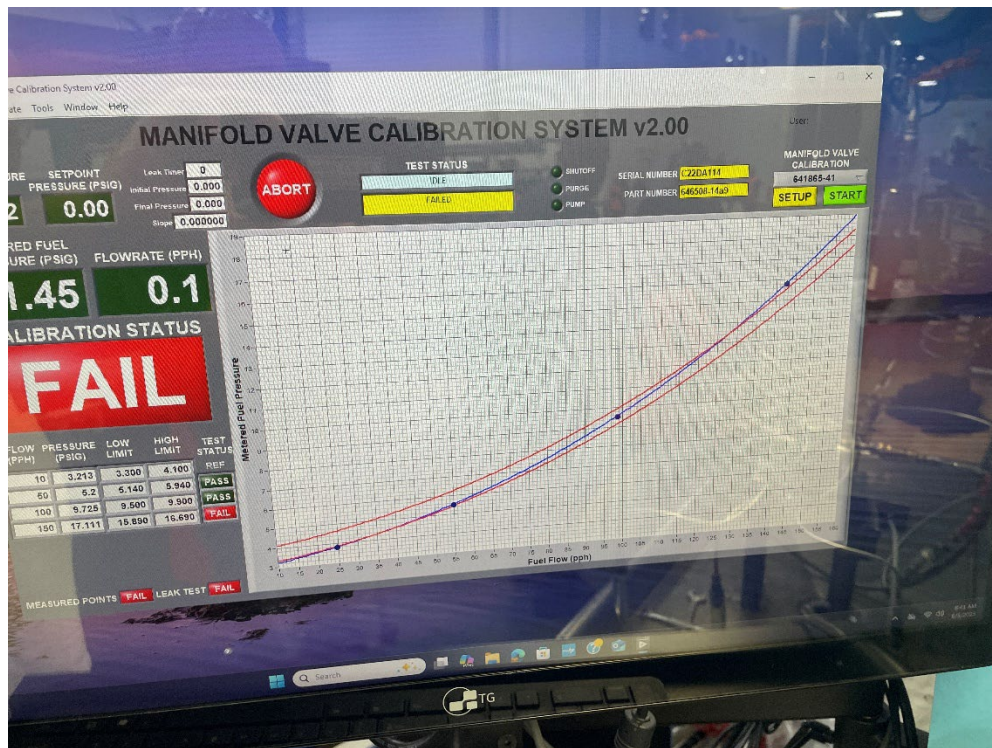


Figure 2. Flow/bench test 1.

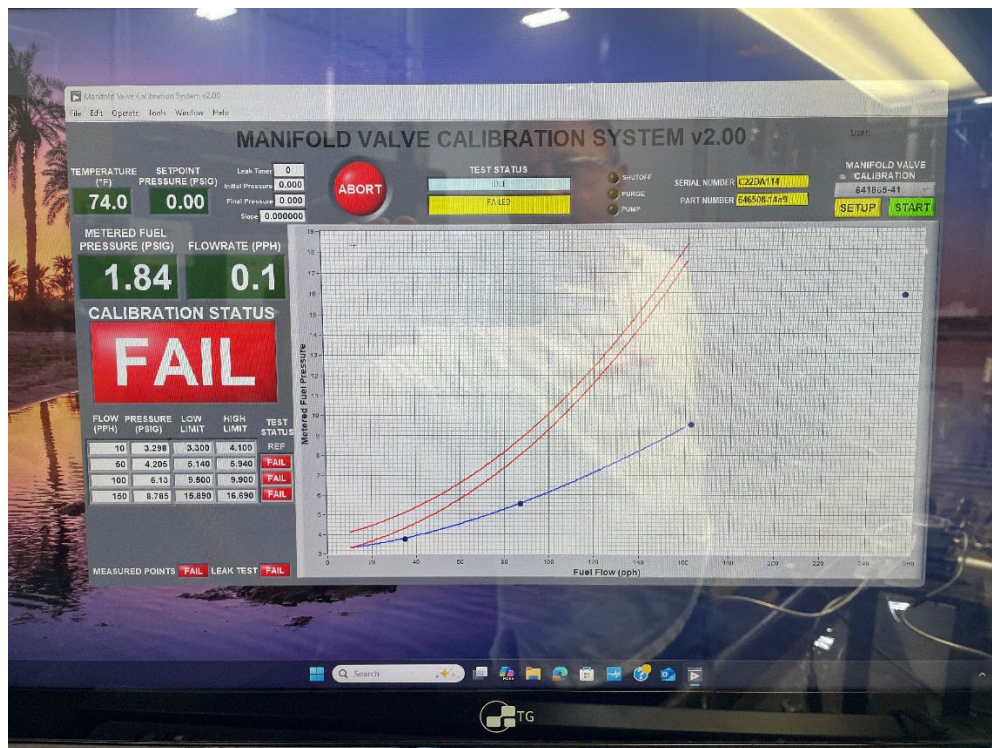


Figure 3. Flow/bench test 2.