

Advisory Wire

REFERENCE NO: AW700-28-0748, Rev 2

ATA: 28-11

SUBJECT: Fuel Quantity Monitoring in Flight

INFORMATION TYPE: Maintenance Operational

EFFECTIVITY: Global 7500 aircraft pre SB 700-57-7511 (70007, 70009 to 70011, 70013, 70014, 70016, 70017, 70021, 70024 to 70027).

1. REFERENCES:

- 1.1 Airplane Flight Manual (AFM) CSP 700-7000-1, Rev 5, Sep 05, 2019, Page 03-09-11
- 1.2 FON FUEL-002-ANC
- 1.3 Bombardier SB 700-57-7511 Rev 01- SPECIAL CHECK/MODIFICATION – GENERAL – INSPECTION OF VENT AND DRAIN HOLES AT RIBS 3, 7, 13 AND REMOVAL OF SEALANT IF BLOCKED
- 1.4 Quick Reference Handbook, Volume 2 (QRH 2), Rev 5, Sep 05, 2019, Page FUEL 09-12
- 1.5 Flight Crew Operating Manual, Volume 1 (FCOM1), Rev 5, Sep 05, 2019, Page 03-09-14

2. INTRODUCTION:

This Advisory Wire (AW) is to inform operators of a circumstance where fuel consumption may need to be monitored during take-off and initial climb and to inform operators of the SB (Ref 1.3) to inspect the wing ribs vent and drain holes for blockage.

3. DESCRIPTION:

It was reported from a flight with a high fuel load that fuel was seen exiting from the left-wing fuel tank to the outside of airplane from both Pressure Relief Valves (PRV) during take-off and initial climb.

Troubleshooting and investigation confirmed that some fuel had been lost. Further inspection of the fuel tank revealed that there were blocked holes due to excess sealant at rib 13. This prevented air from migrating to the inboard-forward part of the wing tank during takeoff & initial climb and resulted in the float valve not being able to open. This prevented the venting of the tank and led to enough pressure to open the pressure relief valves and for fuel to exit the wing tank.

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The system is designed to post a **FUEL QTY MISCOMPARE** Caution message when the delta between the Flight Management System (FMS) and the Fuel Quantity Management Computer (FQMC) exceeds 1200 lbs which may lead to a possible diversion following Aircraft Flight Manual (AFM) procedure (Ref 1.1). In the reported case, since the delta was less than the threshold, the message was not posted but it was observed by the crew.

4. ACTION:

To be susceptible to the events above, the total fuel load needs to be more than 34000 lbs. and the aircraft performing a straight climb while the center transfer is active. If a persistent wing fuel asymmetry is observed during climb, accompanied by more frequent than normal fuel transfer, Bombardier recommends to perform step climbs. Monitor fuel consumption and balance during climb and observe the wing for potential fuel leak streaming overboard. If the fuel leak persists, stop the center transfer. Resume fuel transfer when fuel quantity reaches less than 16,000 lbs in each wing tank. (Ref. 1.2). If **FUEL QTY MISCOMPARE** CAS posts during climb, follow the associated Non-Normal procedure in the QRH2: FUEL 09-12 AFM Section 03- 09-11 (Ref. 1.41). The procedure can also be consulted in the Air Flight Manual (AFM) CSP 700-7000-1, Page 03-09-11 (Ref. 1.1) and in the Flight Crew Operating Manual, Volume 1 (FCOM1), Page 03-09-14 (Ref. 1.5).

Operators should also familiarize themselves with the contents of the following Flight Operation Notification: FON FUEL-002-ANC (Ref. 1.2).

Bombardier recommends to perform the Service Bulletin SB 700-57-7511 Rev 011 at the earliest convenient time. (Ref. 1.3). The SB covers the same effectivity as this AW considering that all the other aircrafts are addressed in production. Upon the incorporation of the Service Bulletin (Ref. 1.3), no more action is required from the operator.

Should you have any questions pertaining to this AW or additional queries, please contact your Bombardier Field Service Representative (FSR) or the Customer Response Center (CRC).