Diamond DA40, Chafing Intake/Inlet Ring, ATA 7160

While performing a 100-hour inspection, a mechanic stated he found fine metal particles covering the throat and valve of the fuel injection servo (P/N 2576568-1). The mechanic sent the servo to a repair facility to determine whether any of the metal particles entered the servo's blast tubes. It has been determined the metal originated from the chafing of the loose fitting inlet ring (item 220; P/N 7166-20-31) within the flange (item 20; P/N 7166-20-33).

The loose fit is due to manufacturing. Diamond Aircraft has not come up with a fix as of this date. For now, we are cementing the inlet ring to the flange while awaiting a permanent fix.

February, 2009

Diamond DA40 Chafing Intake/Inlet Ring, ATA 7160

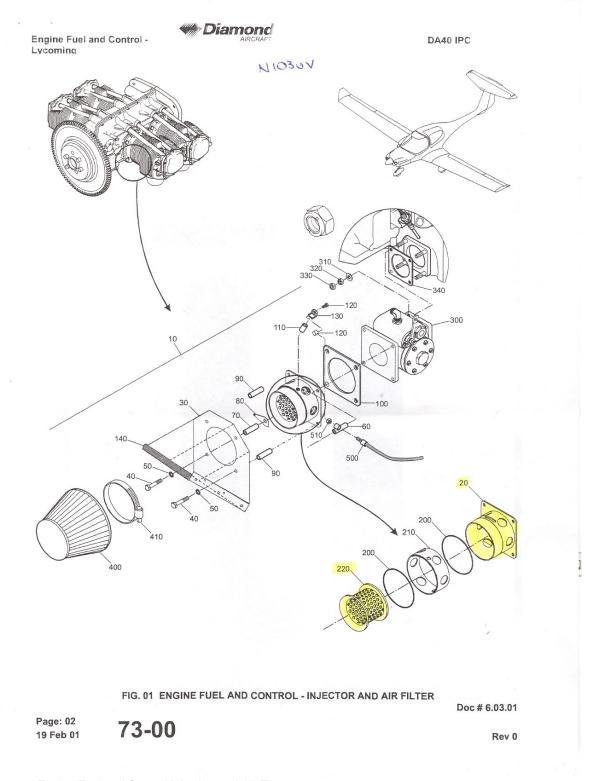


Figure 1 Engine Fuel and Control Injection and Air Filter

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Diamond DA40 Chafing Intake/Inlet Ring, ATA 7160

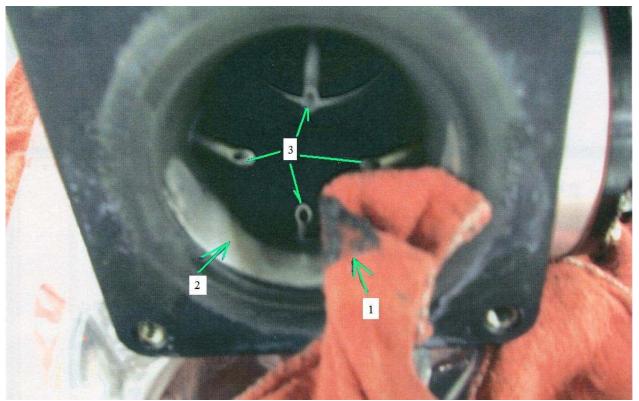


Figure 2 Fuel Injection Servo Inlet Showing Metal Particles

"Here you can see the metal adhering to the rag (1), and the resulting clean area at the inlet of the fuel injection servo (2). The particles coated the entire length of the throat and valve. We were concerned metal may have been ingested into the blast tubes (3). Upon inspection by an overhaul facility, it was found that no metal had entered the blast tubes."

Part Total Time: 686.5 hours.

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