

## **Diamond DA40F, Cabin Door Separation, ATA 5210**

The submitting mechanic reported that the aft cabin door assembly separated from the aircraft during flight. The pilot maintained control of the aircraft and it landed safely at the departure airport.

The door was eventually recovered, and upon visual inspection, it was noted that the aft door latch pin was not engaged. The front door latch pin was properly engaged and the door latch was closed. No 'door open' annunciation was indicated because the door 'open' switch is actuated from the front door latch pin.

Upon disassembly of the door, the mechanic noted that the aft door latch rod was detached from the latch mechanism. The attachment clip (item number 215 in the parts book) was bent and allowed the rod to become separated from the latch.

The repair team recommended that a stronger material be used for the attachment clip or a dual switch set-up to indicate both pins are positively engaged before flight.

Retaining attachment clip P/N was not provided, but indicated by parts book section 52-10, item 215, page 12, figure 6. Aft Cabin Door P/N D41-5221-00-00.

Part Total Time: 212.1 Hours