

UNITED STATES DEPARTMENT OF THE INTERIOR AVIATION MANAGEMENT

TECH BULLETIN

INSPECTION

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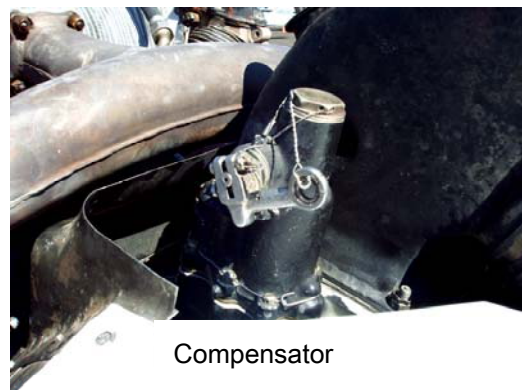
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DISTRIBUTION: DOI Aviation Management Approved Inspectors, DOI SEAT Managers, DOI SEAT Vendors, Dromader Operators

SUBJECT: Dromader Fuel Compensation Needle

DISCUSSION: The SEAT program has had an incident-with-potential with regard to a failure of the fuel compensator needle inside the altitude compensator attached to the top of the carburetor on an M-18 Dromader. The needle is comprised of three parts: the tapered needle, the attachment cap that is screwed into the barrel of the needle, and a brass rivet locking the assembly together. This assembly is fit tight with no play. As you can see in the picture below, the rivet hole in the needle is elongated. What you cannot see is that the threads in the barrel of the needle are non-existent (possibly due to vibration). When the needle failed, it caused the mixture to go to the full lean position, starving the engine of fuel and shutting it down. This happened in flight. Luckily, the engine restarted (twice) and the aircraft landed safely.

RECOMMENDATION: Inspect your aircraft's carburetor by removing the compensator from the top of the carburetor, and inspect the fuel compensation needle for serviceability. Record the results and any necessary action in the appropriate maintenance log. Notify a DOI AM maintenance inspector of the results and provide the aircraft registration and serial number.



Please contact Bill McCauley, National SEAT Specialist, (208) 433-5080, with any questions you may have.

/s/ Allen P. Rice
Chief, Division of Technical Services