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SERVICE BULLETIN

IMPORTANCE	HIGH
AREA AFFECTED	FUEL TANK INTEGRITY
SA/B NUMBER	CH 009-04-2019
EFFECTIVE DATE	18 APRIL 2019

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1. Applicability:

All Cheetah-XLS/BushCat aircraft within the serial number range:

CH-001 to CH-049	Not affected
CH-050 to CH-053	Affected
CH-054	Not affected
CH-055 onwards	Affected

2. Subject:

Fuel tank inspection to ascertain if damage has been sustained by the fuel tank due to impingement of the seat backrest bolt on it with the passage of time, and if so ascertain the severity of the damage.

3. Purpose:

This mandatory service bulletin ensures that all aircraft fuel tanks are both inspected for damage due to the impingement of the seat bracket backrest bolt end and preserved from damage with ongoing inspections.

4. Background:

During the course of periodic maintenance inspections and pre-flight checks carried out on various aircraft; it was found in some aircraft that the aft end of the M5 bolt protruding from the bottom of the seat back rest was impinging upon the fuel tank and eroding away a section of the fuel tank.

Due to concerns that over time it could adversely affect the integrity of the fuel tank, it was deemed necessary to inspect all aircraft possibly affected and take corrective action as required.

5. Discussion:

In order to ensure the ongoing integrity of the fuel tank, an immediate inspection of aircraft in which the seat back rest and fuel tank interface might be problematic is required before the next flight.

In some aircraft in which the geometry precedents the impingement of the bolts on the fuel tank, a section of adhesive rubber strip was attached to the fuel tank to prevent damage to the fuel tank by the bolt.

The necessity for this service bulletin came about firstly because some aircraft with the required geometry for the impingement of the bolts on the fuel tank were released without the adhesive rubber pad, and secondly because in some aircraft with the rubber pad present, the impingement of the bolt is sufficient to erode the rubber pad and then begin to erode the fuel tank beneath.

6. Required action:

All aircraft must be inspected visually for damage to the fuel tank before the next flight by the owner / operator. If no damage is found, ongoing monitoring in preflight inspections must be conducted.

It should be noted that in aircraft with the adhesive rubber pad attached to the fuel tank, damage to the rubber pad is not considered damage to the fuel tank. If, however, damage to the rubber pad is visible, the inspection must ascertain whether the damage is limited to the rubber pad or if it has damaged the fuel tank beneath the rubber pad as well.

If the damage is limited to the rubber pad, continue to fly the aircraft and check the rubber visually during each preflight inspection. Replacement of the rubber adhesive pad also needs to be added to the 100 hour / annual maintenance procedure.

If the damage is to the fuel tank (either in the presence of or the absence of the adhesive rubber pad); a measurement must be taken to establish the depth of the eroded region in accordance with the procedure detailed below.

If the depth is less than 1.2 mm, notify the factory but continue to fly the aircraft while the factory responds with a permanent solution. An ongoing inspection of the depth of the eroded region needs to be carried out every 25 hours of flight in the interim.

If it is found that the depth of the eroded region exceeds 1.2 mm, notify the factory immediately and refrain from flying until the factory responds with a solution.

To accomplish the procedure, you will find the following useful:

- Hand held torch
- Small mirror on flexible arm
- Ruler / Vernier caliper
- Small rigid object markable by pen to determine the depth any indent found with the tank in situ
- Permanent marker, preferably fine liner

Inspection Procedure:

1. With the aircraft in a well lit area, open the doors and tip each backrest forward as far as possible.
2. With reference to figures 1, 2 and 3 below, inspect the fuel tank opposite the end of the bolt at the bottom of the seat and see if there is any visible indentation where the end of the M5 bolt protruding from the back of the back rest comes into contact with it.
3. In the presence of an adhesive rubber pad, inspect the pad to see if there is any erosion. If there is, establish if the fuel tank beneath has sustained any damage.

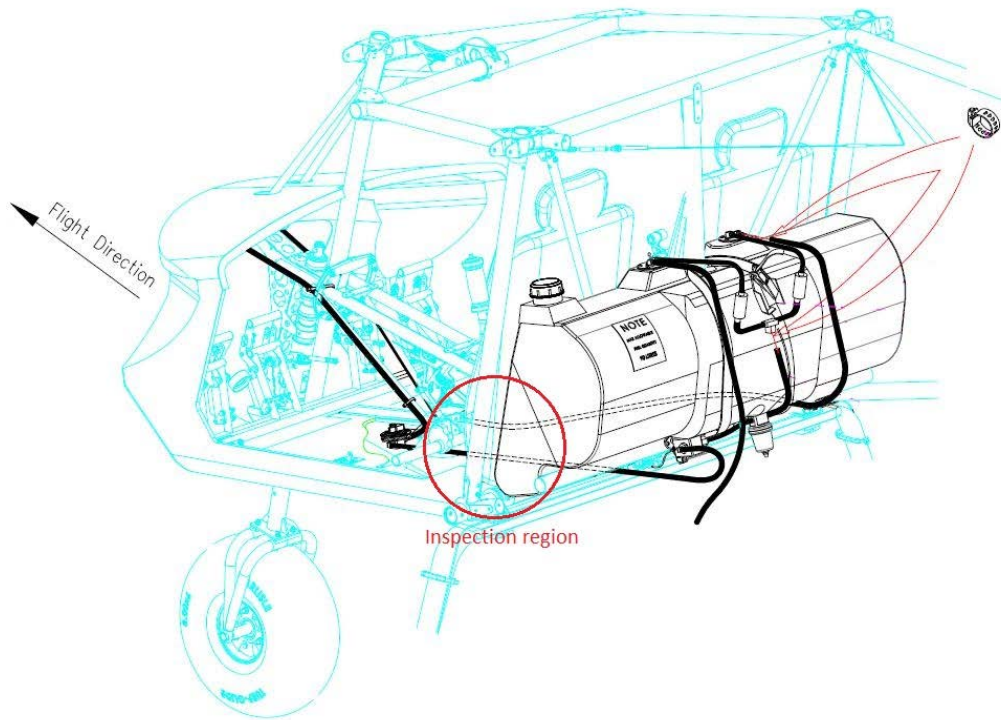


Figure 1: Schematic showing inspection region



Figure 2: Fuel tank showing eroded region



Figure 3: Detailed view of bolt protruding from back rest and coming into contact with fuel tank

4. If an indentation is visible in the fuel tank, insert a rigid object (an old small Allen key might work well, considering the available space) into the indentation and mark how far it goes in to ascertain the depth of the indentation. Mark off the object with the marker, withdraw it and measure the depth.
5. Compare the depth with the allowable depth mentioned above and take action accordingly.

7. Approved personnel:

This work prescribed in this service bulletin may only be carried out, and signed off by persons with the following qualifications:

- In South Africa: RAASA Approved Person (AP), SACAA Aircraft Maintenance Engineer (AME) or higher, or person approved by the manufacturer.
- In USA: FAA Light sport repairman (LSRM) or higher, or person approved by the manufacturer.

In the case of owner/kit built aircraft the kit builder is also approved to conduct the installation, if his/her country of registration allows.

8. Effective date:

This notice takes effect as of the 18th April 2019.

9. Contact:

Questions and/or comments regarding this safety alert should be directed to Rainbow SkyReach (Pty) Ltd on:

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