

<b>Title: Cavalon Tank Cap O-Ring Replacement</b>		
<b>AG-SB-2019-03-B-EN</b>		<b>Compliance Category:</b>
<b>Applicability</b>		<b>A – MANDATORY</b> <b>B – RECOMMENDED</b> <del><b>C – OPTIONAL</b></del>
<b>Aircraft type &amp; model:</b>  Cavalon	<b>Affected Serial number(s):</b>  All Cavalon from V00367 to V00429, excluding V00418, V00426, V00428	
The maintenance manual to be referenced is this stated or subsequent issue.		As per AutoGyro website
<p>This form is the response from AutoGyro GmbH either against a problem found in the product in service requiring a containment or rectification action, or as service information for aircraft modification incorporation.                  For help, contact AutoGyro on 49(0)5121 88056-00, or email <a href="mailto:airworthiness@auto-gyro.com">airworthiness@auto-gyro.com</a>.</p>		

**Documentation (Service Bulletin Completion action)**

The accomplishment of this Service Bulletin, or the decision of its rejection, must be properly documented, if such procedure is required by the relevant authority

**Category Codes**

A – Mandatory – failure to comply result in a significant reduction of flight safety, injury or death  
 B – Recommended – failure to comply may result in reduced safety margin, injury and/or equipment damage  
 C - Optional – improves operating behavior, reliability and/or maintainability

<b>Chief Certification Officer</b>	<b>Chief Technical Officer</b>

<b>Contact &amp; Info:</b> <a href="mailto:airworthiness@auto-gyro.com">airworthiness@auto-gyro.com</a> <a href="http://www.auto-gyro.com">www.auto-gyro.com</a>	<b>AutoGyro GmbH</b> Dornierstr. 14 31137 Hildesheim
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**Reason and overview of the Service Bulletin (cause of problem if known)**

The recent modification of the Cavalon tank introduced a tank filler cap assembly that is sealed at the tank by an o-ring, and secured in position by an M50 PA nut (f) (drawing below)

Due to small variations in tank wall thickness, it is possible that the current o-ring (g) may not sufficiently seal the assembly. A thicker o-ring measuring 50x5mm has been introduced.

This service bulletin instructs how to replace the o-ring in the affected aircraft.

**Manpower estimates**

The task may only be performed by an organization or individual entitled and trained to carry out maintenance on AutoGyro aircraft.

Estimated man-hours to complete the task as a stand-alone item is:

approx. 1.0 hr

**Compliance**

*This bulletin should be performed at the 25hr service*

**Customer Support**

Labour hours (1hr) and materials are covered by this SB. For claims, please quote this SB number AG-SB-2019-03-B-EN.

**Tooling required**

Standard tools.

27403 Extraction tool (elec plug pins)

46505 M50 (60mm) wrench socket 3/4"

**Weight and Balance Effects**

Nil

**Manuals affected**

POH and AMM AutoGyro Cavalon are not affected.

**Previous Modifications that affect the SB**

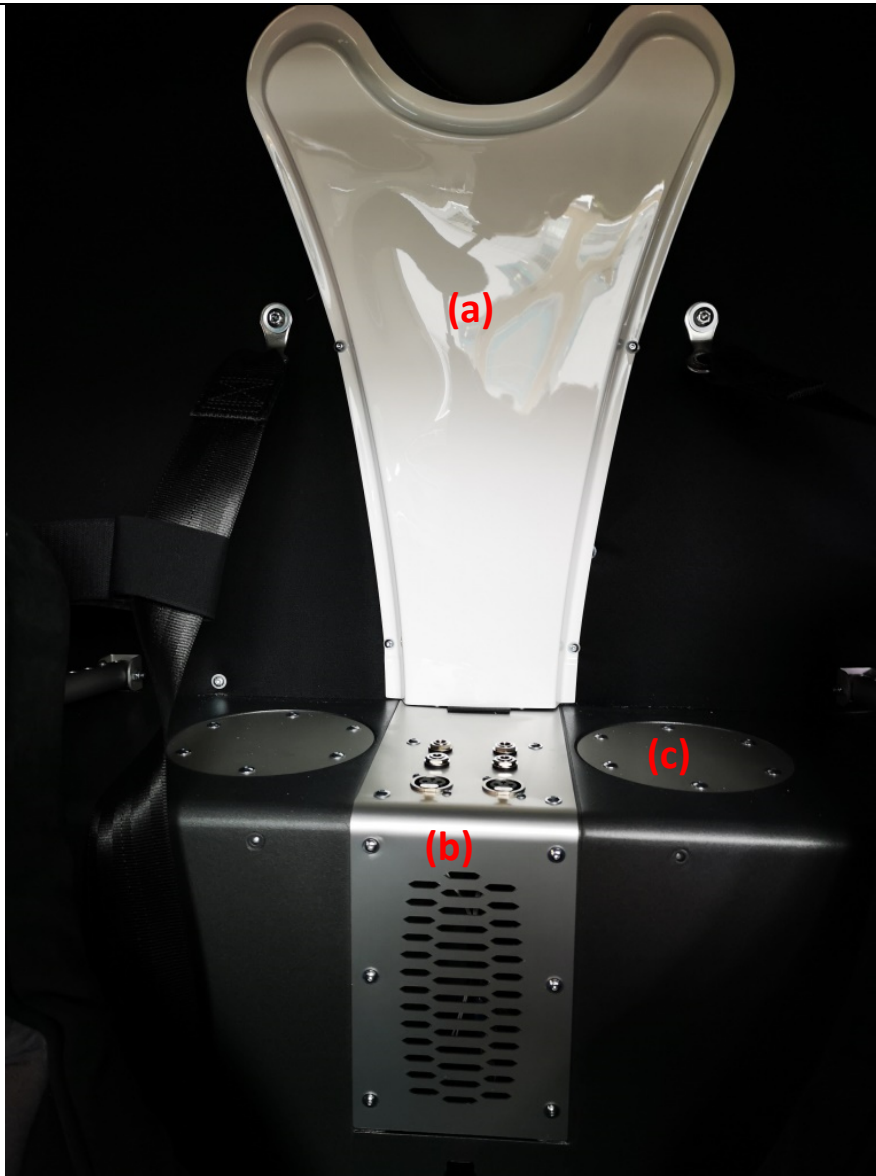
None

**Accomplishment instructions (Action required to implement this bulletin):**

Effective date of this SB is 05 September 2019.

## Instructions

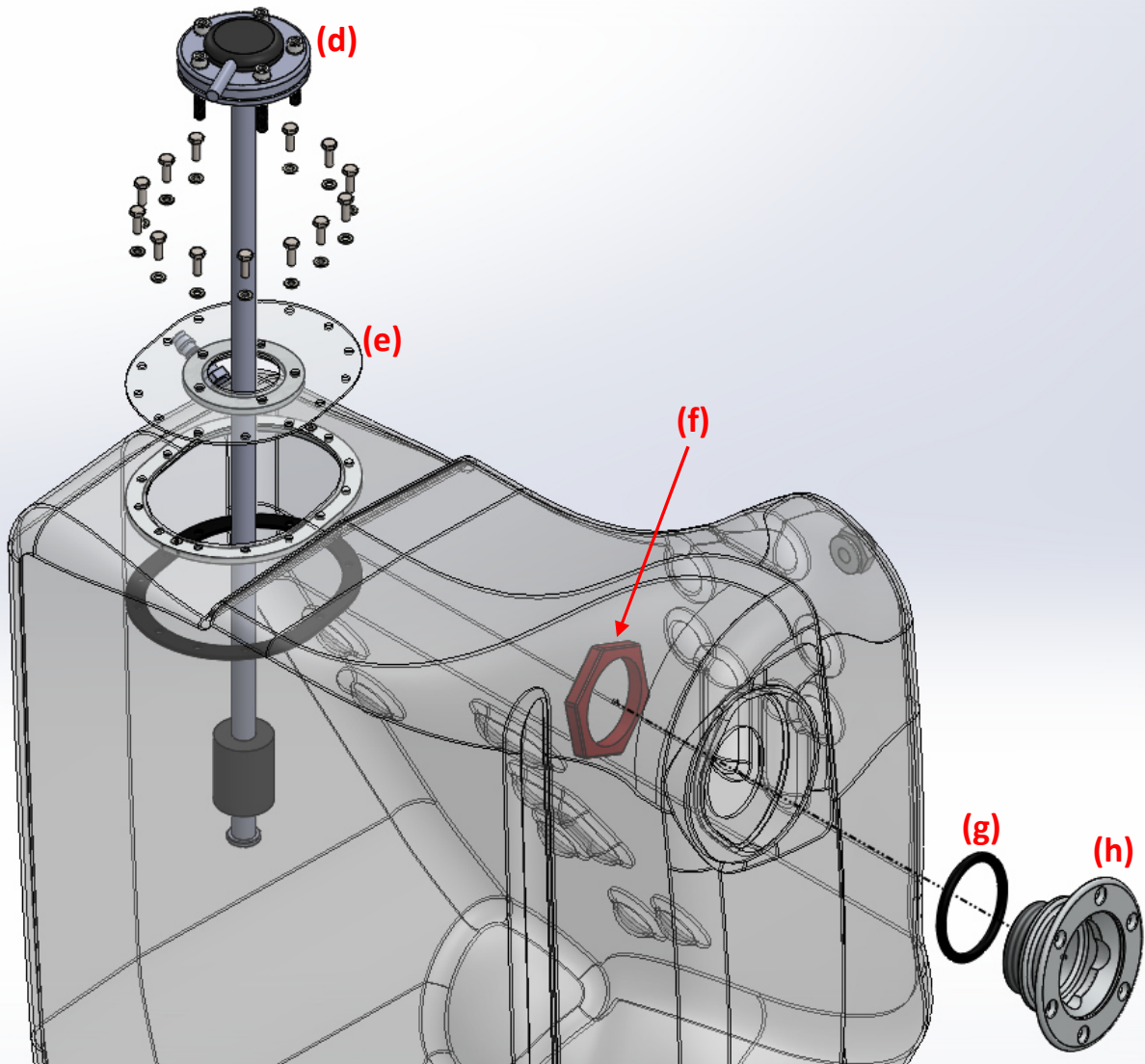
1. Drain the tanks of fuel.
2. Remove the PPC cover (a) in the cabin interior to gain access to the two rear screws of the intercom panel (b).
3. Remove the intercom panel (b) to gain access to the tank level sensor plug (photo).
4. Remove the left tank access cover (c) to gain access to the tank level sensor (d).
5. Disconnect the blue 9 pin plug of the tank level sensor and, noting the location of the wires in the plug, remove the two wires using tool 27403.
6. Remove the six screws of the tank level sensor (d) and, noting orientation, remove the sensor. Secure the ground cable to the tank upper surface with tape.
7. Remove the 14 bolts of the cover plate (e) and remove the cover plate to gain access to the M50 PA nut securing the tank cap (f).
8. Using a 60mm socket (46505), remove the M50 PA nut (f) on the rear of the tank cap (h). The ratchet can be inserted into the socket in a reverse manner from outside the aircraft to ease disassembly and assembly.
9. Remove the six screws securing the tank cap to the fuselage.
10. Extract the tank cap (h) from the tank ensuring that the o-ring (g) stays in place on the tank cap and does not drop between tank and fuselage.
11. Clean all old sealant and any fluids from all tank components (d,e,f,g & h) and tank surfaces.
12. De-grease all components stated in operation 10.
13. Place the new o-ring 44557 50x5 onto the tank cap.
14. Re-assemble the tank cap and the tank level sensor in reverse order to disassembly (M50 nut torque 30 Nm), ensuring Loctite 5331 is re-applied to the respective surfaces and screws of cover plate (e) & tank level sensor (d).
15. Ensure any debris is removed from the tanks before final closure.
16. Carry out a functional check of the fuel level sensor. Add enough fuel so that the tank is approx. ½ full. Ensure that the physical amount of fuel in the tank (using a dipstick) is comparable with the level shown on the cockpit fuel gauge.
17. Carry out a leak check of the fuel tank and connections. Fill the tank to the lower lip of the filler cap neck. Close the cap and gently rock the Gyro laterally on the undercarriage boom by placing a hand on the mast and rhythmically pushing. Ensure no fuel/leaks are visible at the tank cap and tank level sensor assemblies. Ensure there is no smell of fuel apparent in the cabin.
18. Re-fit the intercom panel (b), PPC cover (a) and tank access cover (c).
19. Carry out a loose article and tool check.
20. Complete any logbook and worksheet entries required.



Interior – PPC cover (a), intercom panel (b) & Tank access covers (c)



Tank level sensor plug



Left tank - tank filler cap (h) and level indicator (d) / cover plate (e)

**Completion of this Service Bulletin must be recorded within the aircraft documentation, in line with the requirements of the country of operation.**

**Material information (Parts required to be made to implement this service bulletin):**

Nil

**List of components (with purchasable part numbers)**

44557 O-Ring 50x5  
30484 Loctite 5331

**Interchangeability**

Not affected

**Parts disposition**

- a) Disposal requirements – Nil
- b) Environmental hazards of parts containing hazardous materials – Nil
- c) Scrap requirements (e.g. mutilate scrapped items beyond use) – Normal plastic waste or recycling