RotorSport UK Ltd Service Bulletin (CofA)

Title: Cavalon low fuel float replacement		Release date 01.Apr. 2019
SB-C-006 Iss1	**Related documents** Modification: MC-411 CCAR No.: CCAR-81	**Compliance Category:** **~~OPTIONAL~~** ~~or~~ **RECOMMENDED or ~~MANDATORY~~**
Applicability		
Aircraft type & model: **Cavalon Pro**	**Aircraft serial Nos. affected:** **Any RotorSport Cavalon Pro to serial 005**	
The maintenance manual to be referenced is this stated or subsequent issue.		RSUK0335 Iss1

This form is the response from RotorSport UK Ltd 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 RotorSport on 44(0)1588 505060, or email compliance@rotorsport.org.

The technical content of this document is approved under the authority of the UK CAA Design Organisation Approval Ref: **DAI/9917/06**

Documentation (Service Bulletin Completion action)

a) Entries within the aircraft logbooks, eg CAA BCAR A6-1 Authorised Person to certify that the work is completed by writing *'SB-C-005 Cavalon low fuel float replacement incorporated'* in the aircraft logbook white pages, and record the action in the pink pages entitled 'Aircraft Modifications'. Both entries must be signed by the CAA Authorised Person together with their CAA Authorisation number.

b) Completion of the SB worksheet attached. This must contain a CRS statement, and a final check item that no tools or equipment have been left within the aircraft.

c) No Type Approval change application document is required. (This is required where the SB will affect the type approval limitations, eg airspeed change or MTOW change and enables the owner to request the permit change required)

d) Any other Certificate of Release to Service form requirements.

Document approval signatures			
Engineering Manager	**CVE (as required)**	**Chief Test Pilot (if flight performance or safety effect)**	**Head of Airworthiness**
G. Speich Apr 8 2019 10:46 AM This document has been issued according to an approved computer generated signature procedure DocuSign		**Not required**	

Reason and overview of the Service Bulletin (cause of problem if known

The low fuel sensor comprises a float containing a magnet, that slides vertically along a brass rod in the fuel tank. When the fuel level reaches the minimum assigned level, the float magnet passes and activates a magnetically activated switch. This allows current to flow to the low fuel warning lamp.

This float has been found to sometimes absorb fuel, depending on the fuel type used and altitudes operated at.

Absorption of fuel means that the float has less buoyancy, and causes a low fuel warning when in excess of the fuel low fuel warning level is in the tank.

This bulletin is to replace this float with a denser float material, which is less susceptible to fuel ingress and altitude changes.

Manpower estimates

Accomplishment of this Service Bulletin requires the following personnel

(i) A3-7 Authorised engineer

Estimated man-hours to complete the task as a stand-alone item is; 1hr.

Tooling required

Normal hand tools.

Weight and Balance Effects

No effect

Manuals affected

No effect

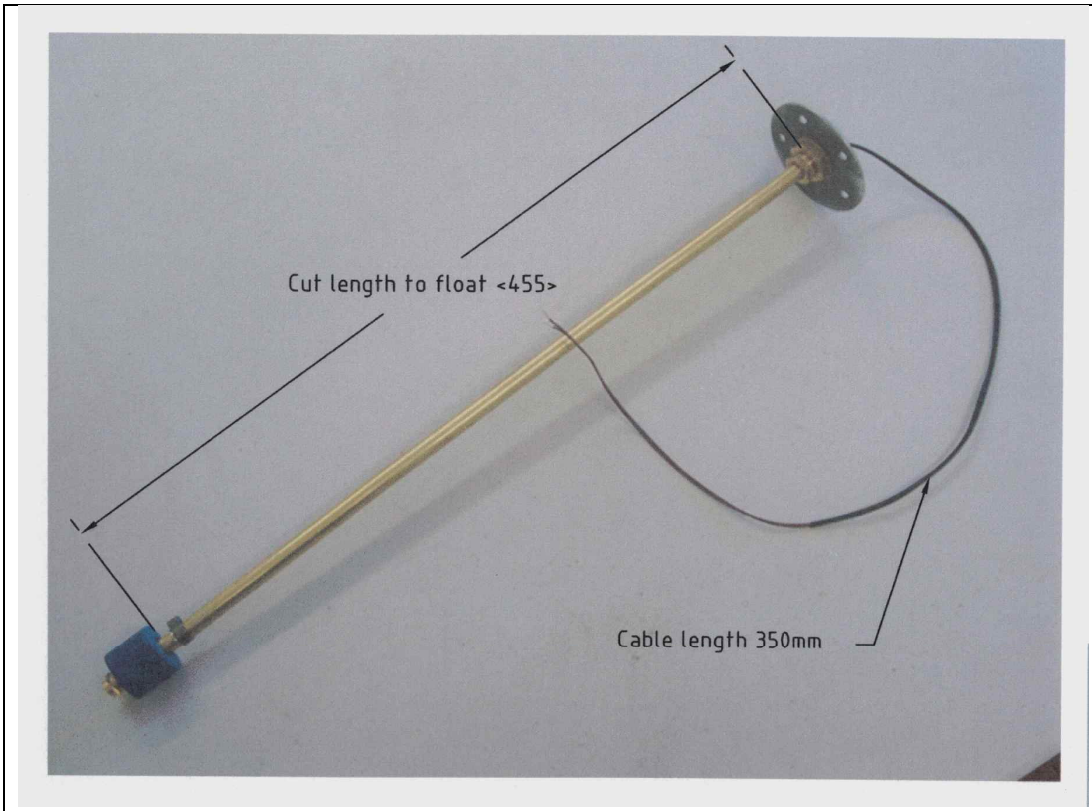
Previous Modifications that affect the SB

None

Accomplishment instructions (Action required to implement this bulletin):

1. The low fuel sensor is located in the top of the right side fuel tank.
2. Drain the fuel and remove the right side access cover to the top of the fuel tank.
3. Remove the centre cable cover and intercom panel.
4. Disconnect the low fuel sensor connector plug, and remove the sensor terminals from the plug.
5. Remove the low fuel sensor from the tank. Tank care not to drop the underside clamp ring into the tank.
6. Remove the brass split pin from the bottom of the sensor rod. A new pin is supplied with the new float.
7. Remove the blue float and discard. Replace with the new float, with the dot uppermost.
8. Refit the split pin and fold out the pin.
9. Refit the sensor assy as a reverse of the previous instructions. Use Loctite 5331 sealant on the mating surfaces to seal the assy to the tank.
10. Before refitting any covers, turn on the keyswitch and ensure the low fuel warning lamp illuminates. Then add approx. 10ltrs of fuel, and ensure the lamp extinguishes.
11. If the function is satisfactory, replace the covers and complete the logbook/worksheet annotations.

Photo showing the brass split pin and the float with the marked dot (which is fitted uppermost)



View of the low fuel sensor assembly

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

No parts made during embodiment

List of components (with purchasable part nos)

Low fuel float RSD4889

Interchangeability

Not affected

Parts disposition

a) Disposal requirements – None
b) Environmental hazards of parts containing hazardous materials - None
c) Scrap requirements (e.g. mutilate scrapped items beyond use) – Normal plastic waste or recycling.

Service Bulletin implementation Worksheet

Aircraft type:	**Serial no:**	**G-**
Worksheet completed by:		**Document ref:**
Worksheet cross-checked by (if applicable):		**SB-132 iss 1**

Purpose – record service bulletin implementation actions taken to inspect aircraft and return to service.

Maintenance manual referred-to and issue level:	

Note: attach SB sheets to this document

Task	Notes	Eng'r check/date	Inspector check/date
Confirm low fuel lamp illuminates when empty of fuel			
Confirm low fuel lamp extinguishes when 10ltr of fuel in the tank			
Confirm sensor installed and sealed			

Customer acceptance:	
Name: Signature/date:	Aircraft hobbs meter reading: Confirm logbooks annotated:

Permit Maintenance Release:

'The work recorded above has been completed to my satisfaction and in that respect the aircraft is considered fit for flight. I confirm that no tools, equipment or debris have been left in the aircraft'

Engineer signature and date: CAA PMR Authorisation ref :	Location where work completed