

RotorSport UK Ltd Service Bulletin (Permit)

Title: Cavalon fuel tank/body seal		
SB-118 Iss1	Related documents Modification: MC-357 CCAR No.: CCAR-063	Compliance Category: OPTIONAL or RECOMMENDED or MANDATORY
Applicability		
Aircraft type & model: Cavalon	Aircraft serial Nos. affected: RSUK/CVLN/001 to RSUK/CVLN/021	
The maintenance manual to be referenced is this stated or subsequent issue.		RSUK0288 Iss:6
<p>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.</p> <p>The technical content of this document is approved under the authority of the UK CAA Design Organisation Approval Ref: DAI/9917/06</p>		

Documentation (Service Bulletin Completion action)

- a) Entries within the aircraft logbooks, eg CAA BCAR A3-7 Authorised Person to certify that the work is completed by writing '*SB-118 Fuel tank/body seal 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 (or LAA) Authorised Person together with their CAA (or LAA) Authorisation number.
- b) Completion of the SB worksheet attached, This must contain a PMR 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 Permit Maintenance Release to Service form requirements.

Document approval signatures			
Engineering Manager	CVE (as required) Not required as MC-357 approved	Chief Test Pilot (if flight performance or safety effect) Not required	Head of Airworthiness

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

Cavalon aircraft manufactured to-date have a formed-in-place mastic seal between the fuel tank inlet and the body moulding. It is difficult to create a uniform seal and complaints of cockpit fuel smell have been traced to this seal area. Under MC-357 a moulded seal is introduced and this SB-118 describes fitment to aircraft in-service.



Manpower estimates

Accomplishment of this Service Bulletin requires the following personnel

- (i) CAA A3-7 Authorised engineer (or LAA Authorised engineer)

Estimated man-hours to complete the task as a stand-alone item are; 3 hours (additional time is allowed to allow complete removal of the existing mastic seal)

Tooling required

Hand tools including specially formed ring spanner (see below)

Weight and Balance Effects

None

Manuals affected

POH RSUK0287 is not affected, AMM RSUK0288 affected only by description of the modification.

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Previous Modifications that affect the SB

MC-347 "Cavalon fuel tank inlay ring" (and associated SB-109) introduce the improved method of clamping for the fuel tank to body interface, as used in this SB-118

Accomplishment instructions (Action required to implement this bulletin):

Effective date of this SB is 06.09.16

There is no relevant MPD or other outside body documentation to be referenced.

Instructions

See text of Auto-Gyro document AG-SB-2016-06-B-EN (Cavalon fuel-tank inlay ring) appended. (Note that this Auto-Gyro document also covers parallel installation of the inlay ring, previously described by RSUK document SB-109)

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

No parts manufactured during embodiment

List of components (with purchasable part nos)

See text of Auto-Gyro document AG-SB-2016-06-B-EN (Cavalon fuel-tank inlay ring) appended

Interchangeability

Not applicable

Parts disposition

- a) Disposal requirements – Normal waste
- b) Environmental hazards of parts containing hazardous materials – not applicable
- c) Scrap requirements (eg mutilate scrapped items beyond use) – not applicable

Service Bulletin implementation Worksheet			
Aircraft type: Cavalon	Serial no:	G-	
Worksheet completed by:		Document ref:	
Worksheet cross-checked by (if applicable):		SB-118 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
Remove mounting screws/inlay plate			
Cut-away mastic seal	Prevent debris from entering fuel tank		
Fit moulded seal			
Replace mounting screws/inlay plate	Refit earth braid		
Refit/adjust filler cap			
Check for fuel contamination	Syphon from tank and filter as required		

Customer acceptance:	
Name:	Aircraft hobbs meter reading:
Signature/date:	Confirm logbooks annotated:
Permit Maintenance Release:	
<i>'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'</i>	
Engineer signature and date:	Location where work completed
CAA (or LAA) PMR Authorisation ref :	

AG-SB-2016-06-B-EN – Cavalon fuel-tank inlay ring

Category B

EFFECTIVE DATE

06.09.2016

SUPERSEDES/REPLACES

N/A (initial issue)

APPLICABILITY

This Service Bulletin is applicable for all Cavalon that are affected by fuel smell in the cockpit.

COMPLIANCE

To be performed with the next maintenance.

BACKGROUND

Some Cavalon owners have complained of a fuel smell in the cockpit, noticeable mainly after standing a longer period of time with the doors closed. This has been traced sometimes to small gaps in the sealing between the fuel tank flange and the composite body.

At the affected Cavalon an aluminium “inlay ring” is placed inside the filler neck and by means of a new rubber seal combined with longer fuel filler mounting screws allows the fuel tank flange to be pulled uniformly against the body – squeezing the new rubber seal between to ensure a perfect sealing (see fig. 1).

RISK OF NEGLECT

Failure to comply with this instruction/information will result in:

- Possible damage to the aircraft
- Loss of related warranty.

SCOPE OF WORK

- Check for seepage from the fuel outlet, failure of fuel level sender unit gasket, poor seal between tank lids and the tank, or poor seal tank to body.

AFFECTED AREAS

Fuel tank

SPECIAL TOOLS & CONSUMABLE MATERIALS

xx-00-00-S-xxxxx (L) 7mm ring spanner bent to fit fuel inlet (see fig.3)

PARTS

xx-00-00-S-42901 (L1) Inlay tank insert - kit

LABOR AND REQUIREMENTS

To accomplish 1.5 h

Task may only be performed by an organization or individual trained and entitled to do 'Line Maintenance'!

SUPPORT POLICY

n / a

REFERENCES

Manufacturer Maintenance Manual (MMM) in latest revision.

DOCUMENTATION

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.

Warnings Caution and Notes

This instruction uses **WARNINGS**, **CAUTIONs** and **NOTEs** in bold italic letters to indicate especially critical and important instructions. The call-outs appear at the top of the Maintenance Job Card if of general nature or applicable for the complete task, or will directly precede the individual Work Step.

The meaning of each call-out is defined below:

WARNING: A warning means that the neglect of the appropriate procedure or condition could result in personal injury or fatal accidents.

CAUTION: A caution means that the neglect of the appropriate procedure or condition could result in damage to or destruction of equipment.

NOTE: A note stresses the attention for a special circumstance, which is essential to emphasize.

Category Codes

- A** Safety critical - failure to comply may result in a significant reduction of flight safety, injury or death
- B** Important - failure to comply may result in reduced safety margin, injury and/or equipment damage
- C** Beneficial - improves operating behaviour, reliability and/or maintainability

PARTS LIST

Fig.	Pos.	Description	PC	PIT	Remark
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ILLUSTRATIONS

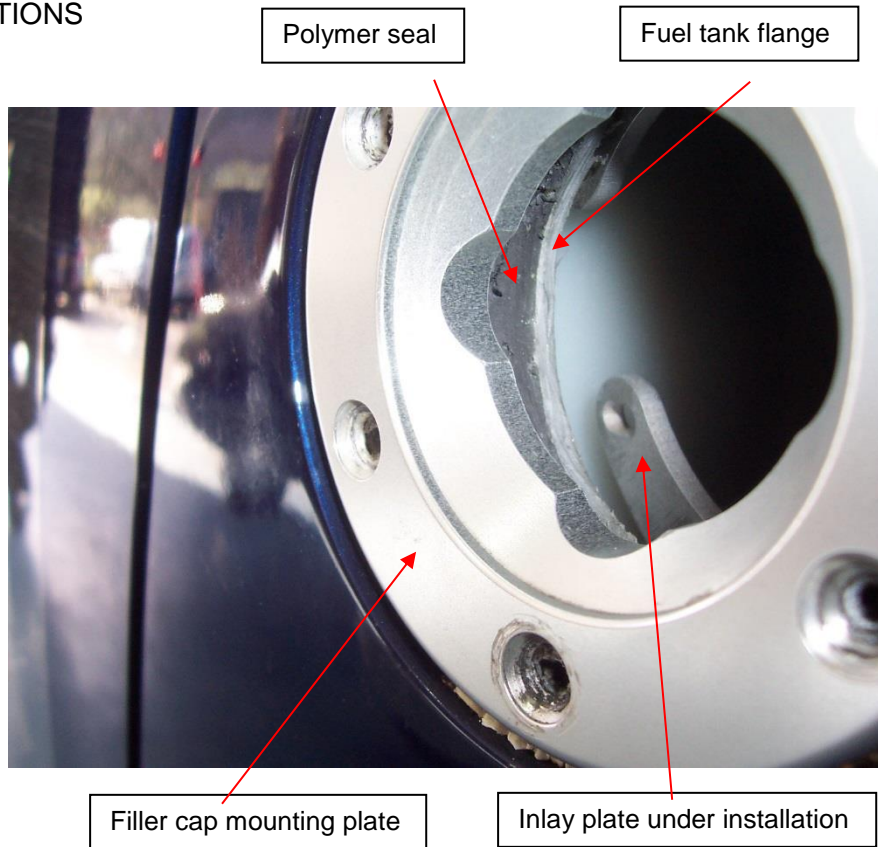


Fig. 1: Fuel filler



Fig. 2+3: Fuel filler and specially formed spanner

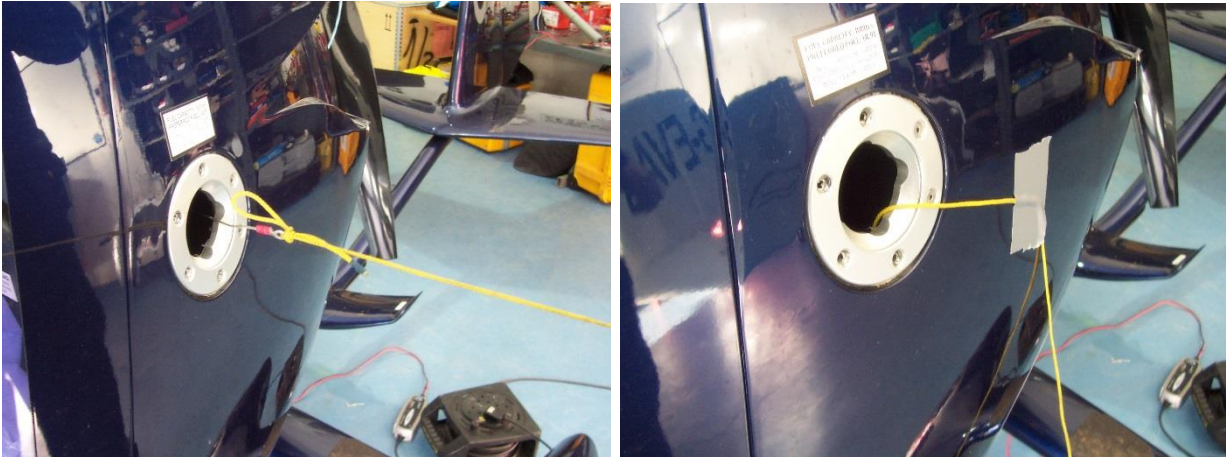


Fig. 4+5: Fuel filler and earth strap safety string

Protective tape

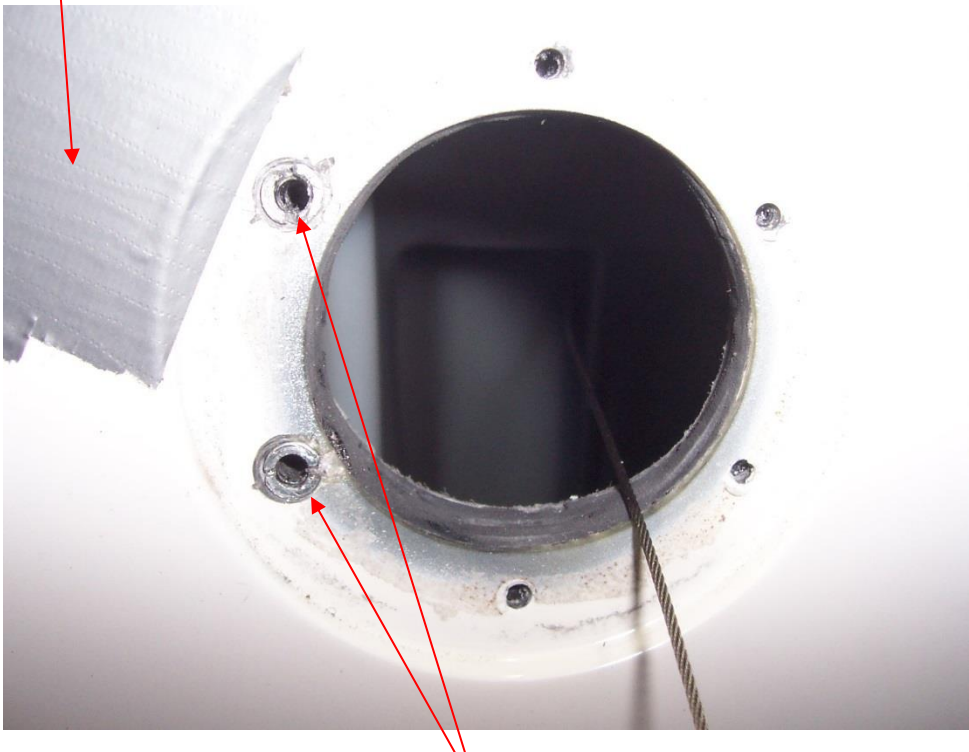


Fig. 6: Two rivnut heads slotted for drilling

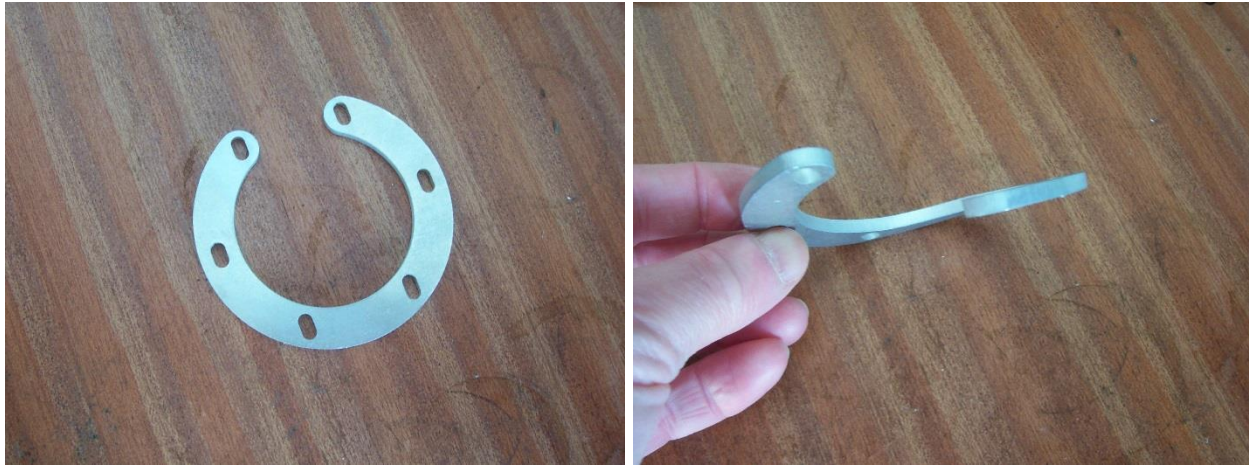


Fig. 7+8: inlay ring

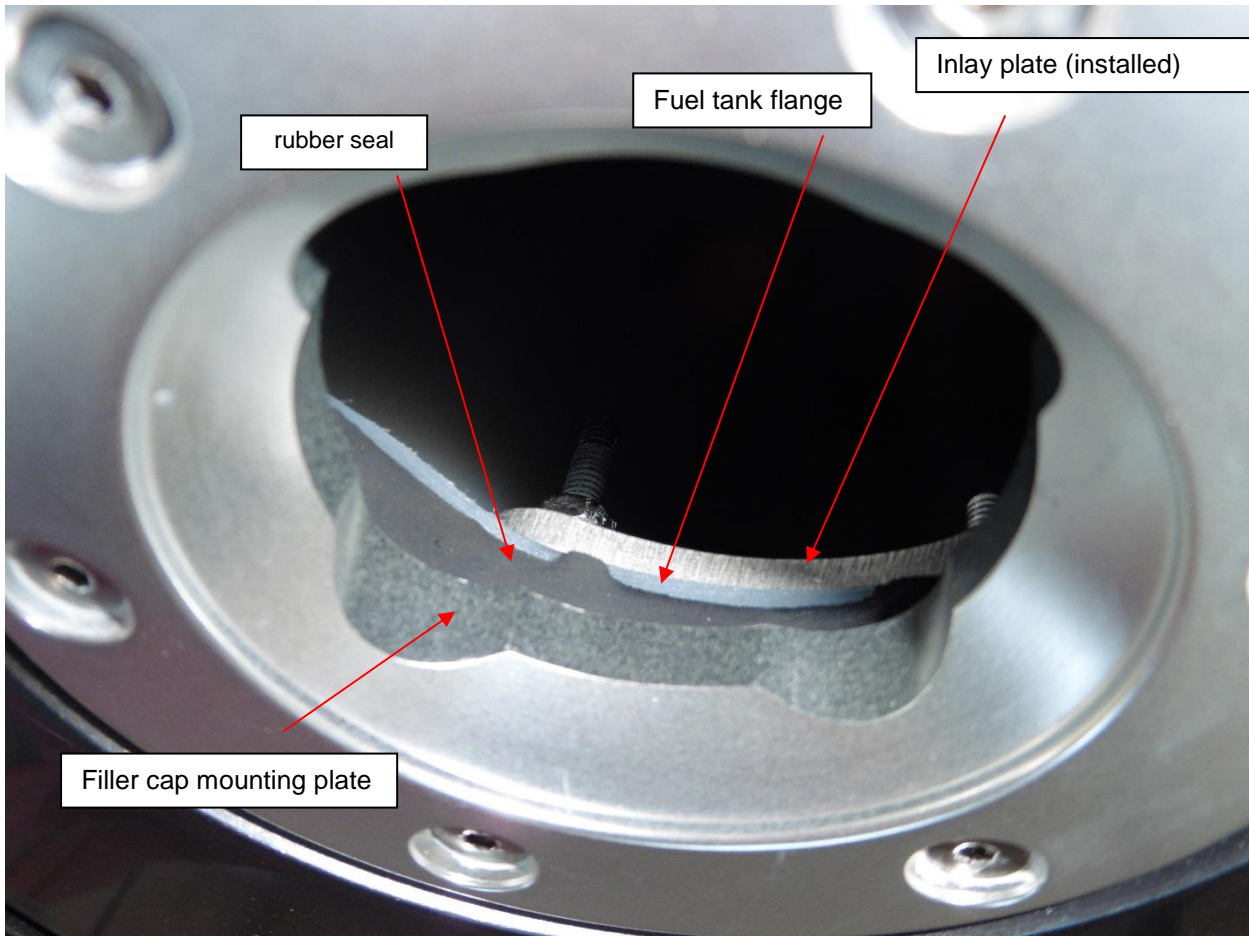


Fig. 9: fuell filler with attached inlay ring and rubber seal