RotorSport UK Ltd Service Bulletin

Title: Nose-wheel spat access hole		
SB No.: 070 Iss1	**Related documents** MC No: MC-261 CCAR No.: None	**Compliance Category:** ~~**OPTIONAL**~~ ~~or~~ **RECOMMENDED or** ~~**MANDATORY**~~
Applicability		
Aircraft type & model: **Cavalon**	**Aircraft serial Nos. affected:** **RSUK/CVLN/001 to 008**	

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 650769, or email info@rotorsport.org.

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

The composite nose-wheel spat fitted to Cavalon aircraft is fitted around the centre stem of the fork fabrication and is attached by screws to two M6 nuts welded to the fork legs. In order to remove the front wheel it is necessary to release these two fasteners, disconnect the nose-wheel steering controls, lower the whole fork assembly and slide the spat off the centre stem of the fabrication. However, by furnishing a hole in one side of the spat it is possible to remove the wheel spindle nut then withdraw the wheel spindle, so releasing the nose-wheel without disturbing the wheel spat installation. Although this hole could be either side, RSUK have elected to standardise the access hole on the left of the aircraft.

Approval

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

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 standalone item are; 0.50

Tooling required

Hand tools only

Weight and Balance Effects

None

Manuals affected

Cavalon POH RSUK0287 is not affected

Cavalon AMM RSUK0288 is affected only by recognition of Modification MC-261 and this Service Bulletin SB-070

Previous Modifications that affect the SB

None

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Accomplishment instructions (Action required to implement this bulletin):

Effective date of SB is 06/12/2013. There is no relevant MPD or other outside body documentation to be referenced. Task limitations – may be carried out by RSUK, or any approved person having A3-7 authorisation.

1. Examine the direction of the nose-wheel spindle, the socket head should be at the left of the aircraft and the hex-nut at the right. If not, it will be necessary to remove the spat in accordance with AMM RSUK0288 in order to carry-out further work. If the spindle is fitted from the left proceed as below.

2. Protect the nose-wheel spat with wide masking tape.

3. Sighting fore-aft and laterally, mark the centre point of the spindle. This should be 25mm from the base of the spat. Mark a 20mm diameter circle around this centre-point.

4. By hand cut a section of softwood to back-up the lower part of the spat.

5. Using a new or freshly sharpened 3.0mm bit, drill through the composite into the softwood backing.

6. Using minimum cutting pressure to avoid splitting the composite, progressively increase the size of hole to about 10mm then remove the wooden backing. Visually check that the hole is correctly aligned with the spindle centre – adjust if necessary with a Dremmel (or similar) hand-grinder.

7. Using a cone-cutter or large countersink drill bit increase the hole to 19.0/20.0mm diameter.

8. Dress the cut surface of the hole, remove the masking tape and carefully fit the grommet with smooth surface outboard.

9. Visually inspect that spat to verify that no damage to the composite has occurred. If in doubt refer to RSUK.

Material information (Parts required to be made to implement this service bulletin):
No parts need manufacture for embodiment of this SB

List of components (with purchasable part nos)
Blanking grommet RSD4784

Interchangeability

Not affected

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Parts disposition

a) Disposal requirements – dispose of the waste material from the hole in standard industrial waste.

b) Environmental hazards of parts containing hazardous materials – During cutting wear protective mask and safety glasses. After cutting beware sharp edges/protruding fibres in the cut parts.

c) Scrap requirements (eg mutilate scrapped items beyond use) – not applicable.

Photographs

Cavalon nose-wheel spat unmodified

Attachment at fork fabrication

Hole cut into moulding

Blanking grommet in place

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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-070 Iss1 Nose-wheel spat access hole 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 an SB worksheet (reference that attached, this contains a PMR statement, and a final check item that no tools or equipment have been left within the aircraft)

Document approval signatures			
Engineering Manager	**CVE (as required)**	**Chief Test Pilot (if flight performance or safety effect)**	**Head of Airworthiness**
Graham Shaw Apr 24 2014 3:04 PM	**Not required as MC-261 has been signed**	**Not required**	Andrew Lyons Jul 4 2014 5:41 PM

Service Bulletin implementation Worksheet

Aircraft type: Cavalon	**Serial no:**	**G-**
Worksheet completed by:		**Document ref:**
Worksheet cross-checked by (if applicable): not required		**SB-**

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

Maintenance manual referred-to and issue level/date:	~~MT-03 - RSUK0012 Iss 9 of 10/10/12~~ ~~MTOsport - RSUK0004 Iss7 of 10/10/12~~ ~~Calidus - RSUK0061 Iss5 of 10/10/12~~ Cavalon – RSUK0288 Iss3 of 12/04/13 (Delete as applicable)

Note: attach SB sheets to this document

Task	Notes	Eng'r check/date	Inspector check/date
Confirm or establish wheel spindle fitted from LHS			
Cut hole 19.0/20.0mm			
Confirm softwood block removed			
Fit grommet			
Confirm no damage to composite			

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 Authorisation code :	Location where work completed