

# RotorSport UK Ltd

## Service Bulletin

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. Upon completion of the action, the person responsible must enter details into the aircraft logbook/worksheet with the SB and/or CAA MPD (Mandatory Permit Directive) number and sign as normal (see instructions below). For help, contact RotorSport on 44(0)1588 650769, or email [info@rotorsport.org](mailto:info@rotorsport.org).

**SB No.: 048 Iss1**

CCAR No.: None

Classification:

Aircraft type & model (applicability)  
RotorSport UK Calidus

Aircraft serial Nos. effected  
RSUK/CALS/001, 002, 003

~~OPTIONAL~~ or  
**RECOMMENDED** or  
~~MANDATORY~~

Problem description & cause of problem if known

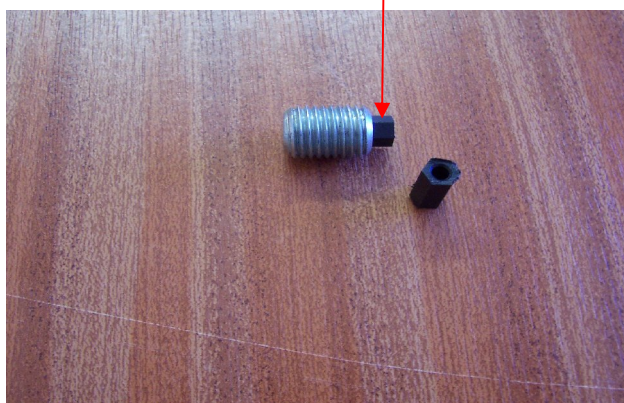
The rudder cables of Calidus aircraft exit the keel-tube through two M12-threaded steel inserts. To prevent the risk of long-term wear of the cable strands due to rubbing on the bore of these inserts two small nylon bushes may be fitted. These are easily fitted without any dismantling, provide a visual reference for wear assessment and may be readily replaced.

Action required to implement this service bulletin

Effective date:  
02.06.11

1. Working underneath the tail of the aircraft, fit the bushes to each side in turn as below:
2. Use an artists paintbrush dipped in solvent to clean the hexagonal bore of the M12-threaded insert and the adjacent female thread in the control-tube fitting.
3. Identify the split in the nylon bush opposite the axial machined groove. Using a small piece of thin metal lever the split of the bush open sufficiently to pass over the cable. Taking advantage of the leading-edge chamfer in the bush fit it over the cable with the circular machined groove outboard of the M12-threaded insert. Push the bush home.

Circular groove is here



4. Protect the cable adjacent to the bush with a loop of masking tape
5. Mix a small amount of the adhesive and using a miniature spatula place a fillet of adhesive around the nylon bush and into the visible threads of the control-tube fitting. Ensure that the adhesive fillet enters the machined circular groove of the nylon bush.
6. Carefully remove the masking tape and check that no adhesive is present on the cable strands
7. After the adhesive has cured (min. ½-hour) carefully move the rudder so that the cable becomes slack and smear a small amount of Ballistol oil on to the cable strands that will pass through the bush
8. On completion of the installation assess the rudder cable tension by measuring the tensile load required to pull each pedal in turn rearwards from its forward stop. The tensile load should be 5 - 6Kgf after stiction effect released, for each pedal action.
9. In the event of excessive wear the bush can be removed by disrupting the adhesive fillet (with hand tools), pulling the bush from the metal insert and replacing as described above

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View of insert's hexagon socket and control tube's female threads



Adhesive fillet in place

Parts required to implement this service bulletin

- 2-off RSD5147 Nylon Bush
- RSD4232 Araldite epoxy adhesive – as required
- RSD4655 Amberklene LO30 aerosol solvent
- RSD4639 Ballistol oil

Effect on Pilots Handbook or Maintenance Manual?

Yes – new text to be incorporated in next revision of Maintenance Manual

Service Bulletin Completion action:

Complete the bulletin implementation worksheet and Issue Permit Maintenance Release Certificate

CAA BCAR A3-7 Authorised Person to certify that the work is completed by writing 'SB-048 Rudder-cable insert bushes fitted' 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.

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

SB authorised by: (name, signature, and date of signature)

Quality Conformance Manager  20/9/14	Engineering Manager  20/9/14	Chief Test Pilot (if flight performance or safety effect)  20/9/14	Structures (where required)  20-09-2011
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Document completion date:	Issued to:	When	Issuer name	Signature
	Internal			
	CAA			
	Owners			
	PFA/BMAA Inspectorate	No		

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## Service Bulletin

Aircraft serial no.  Registration G-	<b>Service Bulletin implementation Worksheet</b>	Date raised:  Raised by:	
Purpose – record service bulletin implementation actions taken to inspect aircraft and return to service.		Document reference: <b>SB-048</b>	
Maintenance manual referred to and issue level/date:			
Note; attach SB sheets to this document			
<b>Task</b>	Notes	Eng'r check/date	Inspector check/date
Bushes correctly in place with adhesive cured			
Masking tape removed and visible check that no adhesive contaminating cable strands			
Smear of Ballistol oil on cable			
Functional check rudder system OK.	Force on left pedal.....  Force on right pedal.....		
Customer acceptance: Name:		Aircraft hobbs meter reading	
Signature/date:		Confirm logbooks annotated:	
<b>Permit Maintenance Release: The work recorded above has been completed to my satisfaction and in that respect the aircraft is considered fit for flight.</b>			
Engineer/Inspector signature		Date of work	
Name: CAA Authorisation code :		Location where work completed	

PLEASE FAX THIS BACK TO 01588650769 (or send by email to [info@rotorsport.org](mailto:info@rotorsport.org))