

# RotorSport UK Ltd    Service Bulletin

<b>Title: Calidus nose-wheel spat</b>		
<b>SB No.: 072 Iss1</b>	<b>Related documents</b> MC No: MC-262 CCAR No.: None	<b>Compliance Category:</b>  <b>OPTIONAL</b> or <b>RECOMMENDED</b> or <b>MANDATORY</b>
<b>Applicability</b>		
<b>Aircraft type &amp; model:</b> Calidus	<b>Aircraft serial Nos. affected:</b> RSUK/CALS/all	

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](mailto:info@rotorsport.org).

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

The optional nose-wheel spat fitted to Calidus 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. A hole in the left side of the spat makes it possible to remove the wheel spindle nut then withdraw the wheel spindle, so releasing the nose-wheel without disturbing the wheel spat installation.



Nosewheel spat installed



Access hole for wheel spindle removal

**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
- (ii) Person authorised to provide second inspection (other A3-7 engineer or qualified gyroplane pilot)

Estimated man-hours to complete the task as a standalone item are; 1.00

**Tooling required**

Hand tools only

**Weight and Balance Effects**

None

**Manuals affected**

Calidus POH RSUK0060 is not affected

Calidus AMM RSUK0061 is affected only by recognition of Modification MC-262 and this Service Bulletin SB-072

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Aircraft type & model: Calidus	Aircraft serial Nos. affected: RSUK/CALS/all	
<b><u>Previous Modifications that affect the SB</u></b>		
None		
<b><u>Accomplishment instructions (Action required to implement this bulletin):</u></b>		
<p>1. The spat is supplied pre-painted, normally in the aircraft body colour. Before fitting verify that a satisfactory colour match will be obtained. There is a hole in the left side of the spat fitted with rubber blanking grommet.</p> <p>2. Lift the aircraft nose until the keel tube is on the ground and retain the aircraft in this position by means of mass bags draped over the keel tube</p> <p>3. Examine the front fork to establish whether two M6 weld nuts are fitted to the lower fork legs (these are used to attach the spat). If they are not fitted (aircraft before RSUK/CALS/021) then it will be necessary to fit a new fork fabrication BG3690.</p> <p>4. Verify that the wheel spindle is fitted with the hex-head on the left side and the nut on the right side. If not, then correct.</p> <p>5. With the aid of an assistant outside the aircraft to steady the nosewheel, working inside the aircraft remove the nut from the top of the fork spindle so that the nose-wheel control link can be lifted away. Recover the O-ring under this link.</p> <p>6. Carefully lower the front fork and wheel away from the aircraft.</p> <p>7. Fit the large grommet to the spat, trimming the central hole with a half-round file as required. Fit the spat over the nosewheel fork spindle and slide into place around the wheel. Fit the two M6 fasteners and large washers to attach the spat, after applying Loctite 243 on the screw threads. Verify that the wheel rotates freely with clearance to the spat edges.</p> <p>8. Verify that there is a grease film around the spindle. If necessary apply Castrol LM grease (RSD4530). Refit the fork into the aircraft bearings. Replace the O-ring then the nosewheel control link, tightening the centre bolt firmly hand-tight and using Loctite 243,</p> <p>9. Check that the nosewheel and rudder operation is free moving and reaching each limit stop (in the nose area), then lower the aircraft back to the ground.</p> <p>10. Check that all tools have been removed from aircraft, complete the worksheet and log-book entries. Note the requirement for duplicate inspection/signature in relation to the nosewheel/rudder cables</p>		
<b><u>Material information (Parts required to be made to implement this service bulletin):</u></b>		
No parts need manufacture for embodiment of this SB		

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<b>Applicability</b>		
<b>Aircraft type &amp; model:</b> Calidus	<b>Aircraft serial Nos. affected:</b> RSUK/CALS/all	
<b>List of components (with purchasable part nos)</b> Nosewheel spat (painted) BG3663 (BOM location C.KU66) Wheel spat installation kit BG3666 (BOM location C.KU67) If needed, replacement Fork Fabrication BG3690 (BOM location C.FA02) Loctite 243.		
<b>Interchangeability</b>  Not affected		
<b>Parts disposition</b> a) Disposal requirements – None b) Environmental hazards of parts containing hazardous materials – None. c) Scrap requirements (eg mutilate scrapped items beyond use) – not applicable.		
<b>Documentation (Service Bulletin Completion action)</b> a) Entries within the aircraft logbooks, eg CAA BCAR A3-7 Authorised Person to certify that the work is completed by writing ' <i>SB-072 Iss1 Nose-wheel spat fitted</i> ' 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)  c) A duplicate inspection/second signature is required to verify correct nosewheel/rudder function.		

Document approval signatures			
<b>Engineering Manager</b>	<b>CVE (as required)</b>  Not required as MC-262 has been signed	<b>Chief Test Pilot (if flight performance or safety effect)</b>  Not required	<b>Head of Airworthiness</b>

# RotorSport UK Ltd Service Bulletin

## Service Bulletin implementation Worksheet

<b>Aircraft type:</b> Calidus	<b>Serial no:</b>	<b>G-</b>
<b>Worksheet completed by:</b>		<b>Document ref:</b>  <b>SB-072</b>
<b>Worksheet cross-checked by (if applicable):</b> not required		
Purpose – record service bulletin implementation actions taken to inspect aircraft and return to service.		
Maintenance manual referred-to and issue level/date:	Calidus - RSUK0061 Iss5 (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			
Original or new fork fabrication?			
Spat fitted to fork spindle and satisfactory rotational clearance			
Fork correctly refitted to aircraft and free moving			
Nosewheel/Rudder control function correct (Duplicate signature required)			

### Customer acceptance:

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