
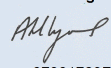


AutoGyro Certification Ltd Service Bulletin (Permit)

Title: Calidus upper mast bracket replacement		Release date 30.03.2022
SB-145 Iss1	Related documents Modification: MC-439 CCAR No.: None	Compliance Category:
Applicability		OPTIONAL or RECOMMENDED or MANDATORY
Aircraft type & model: Calidus	Aircraft serial Nos. affected: As required, optional	
The maintenance manual to be referenced is this stated or subsequent issue.		None
<p>This form is the response from AutoGyro Certification 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, Authorised Person (eg CAA BCAR A3-7) to certify that the work is completed by writing 'SB-145 Upper mast bracket replacement.' in the aircraft logbook white pages, and record the action in the pink pages entitled 'Aircraft Modifications'. Both entries must be signed by the Authorised Person together with their Authorisation number.
- b) Completion of the SB worksheet if attached. This must contain a PMR statement, and a final check item that no tools or equipment have been left within the aircraft.
- c) Complete the Type Approval change application document. (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)	Chief Test Pilot (if flight performance or safety effect)	Head of Airworthiness
 19 / 05 / 2022	Not required, change already approved	Not required	DocuSigned by:  87381729FD8946F... Andrew Lyons 20th May 2022

AutoGyro Certification Ltd Service Bulletin (Permit)

<p><u>Reason and overview of the Service Bulletin (cause of problem if known)</u> In response to occasional reports of both a crack in the upper mast to body mounting bracket or forward mast in the same area, AutoGyro has developed a repair method to replace the upper mast to body mounting bracket with a separate bracket. This allows mast flexure whilst still providing a secure fixing to the front body. This also allows easy repair without welding, or in-service upgrade.</p>
<p><u>Manpower estimates</u> Estimated man-hours to complete the task as a stand-alone item is; approx. 3hrs</p>
<p><u>Compliance:</u> <i>Optional</i></p>
<p><u>Tooling required</u> See AutoGyro AG-SB-2022-01-C-EN</p>
<p><u>Weight and Balance Effects</u> No notable effect</p>
<p><u>Manuals affected</u> Not affected.</p>
<p><u>Previous Modifications that affect the SB</u> None</p>
<p><u>Accomplishment instructions (Action required to implement this bulletin):</u></p> <ol style="list-style-type: none"> 1. Follow the requirements of AutoGyro AG-SB-2022-01-C-EN.
<p><u>Material information (Parts required to be made to implement this service bulletin):</u> No parts made during embodiment</p>
<p><u>List of components (with purchasable part nos)</u> None</p>
<p><u>Interchangeability</u> Not affected</p>
<p><u>Parts disposition</u> a) Disposal requirements – None b) Environmental hazards of parts containing hazardous materials - None c) Scrap requirements (e.g. mutilate scrapped items beyond use) – None.</p>



Service Bulletin


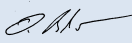
Title: Calidus mast bracket replacement		
AG-SB-2022-01-C-EN	Effective Date: 05 APR 2022	Compliance Category:
Applicability		A - MANDATORY B - RECOMMENDED C - OPTIONAL
Aircraft type & model: Calidus	Affected Serial number(s): All; aftermarket repair	
The maintenance manual to be referenced is this stated or subsequent issue.		As per AutoGyro website
<p>This form is the response from AutoGyro GmbH 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 airworthiness@auto-gyro.com.</p>		

Documentation (Service Bulletin Completion action)

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

Category Codes

A – Mandatory – failure to comply result in a significant reduction of flight safety, injury or death
 B – Recommended – failure to comply may result in reduced safety margin, injury and/or equipment damage
 C - Optional – improves operating behavior, reliability and/or maintainability

Chief Certification Officer  05 / 04 / 2022	Chief Technical Officer  05 / 05 / 2022
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Contact & Info:
airworthiness@auto-gyro.com
www.auto-gyro.com

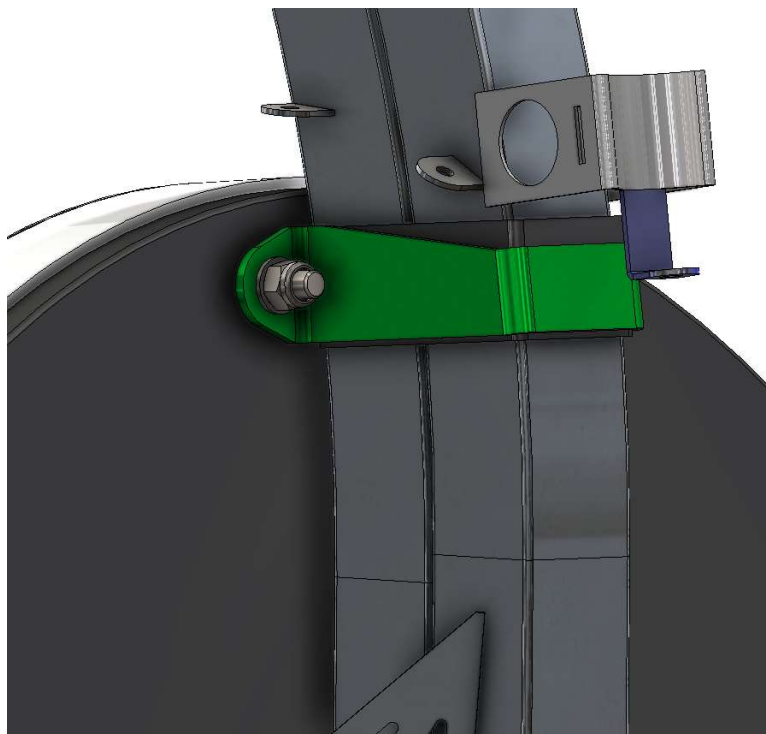
AutoGyro GmbH
 Dornierstr. 14
 31137 Hildesheim

Service Bulletin

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

In response to occasional reports of both a crack in the upper mast to body mounting bracket or forward mast in the same area, AutoGyro has developed a repair method to replace the upper mast to body mounting bracket with a separate bracket. This allows mast flexure whilst still providing a secure fixing to the front body.

This also allows easy repair without welding, or in-service upgrade.



Solidworks view of the improved attachment between the mast and body.

Manpower estimates

The task may only be performed by an organization or individual entitled and trained to carry out the relevant level of maintenance on AutoGyro aircraft.

Estimated man-hours to complete the task as a stand-alone item are:

2.0 -3.0 hrs

Compliance

This bulletin is recommended and has no compliance timeline. Usage depends on the airframe inspection

Customer Support

Materials and labour hours are not covered by this Service Bulletin unless the replacement is covered under warranty and a completed Incident Report submitted.



Service Bulletin

Tooling required

Standard tools, plus a cutting tool to remove the existing bracket.

Weight and Balance Effects

Negligible

Manuals affected

POH & AMM AutoGyro are not affected.

Previous Modifications that affect the SB

None

Accomplishment instructions (Action required to implement this bulletin):

All work is to be carried out in accordance with the latest model-relevant AutoGyro Aircraft Maintenance Manual.

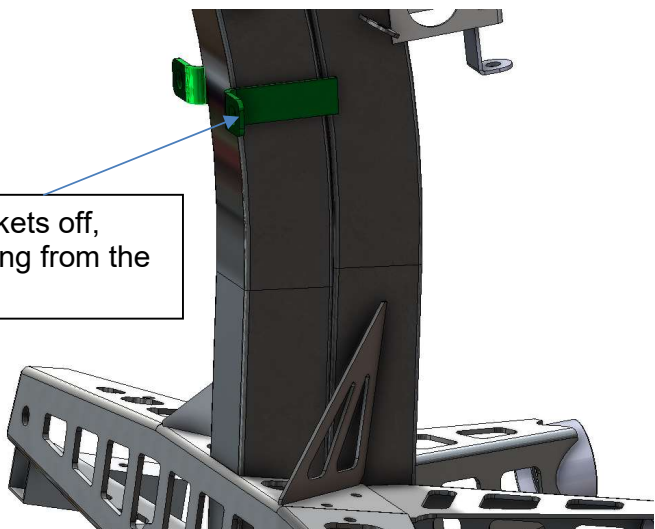
Instructions

Ensure the wheel brake is applied and the ignition/mag switches are switched off/key removed.

1. Remove the mast and engine cowls.
2. Remove the parts around the upper mast attachment brackets to allow access to those brackets
3. Remove the fastenings attaching the upper brackets to the body.
4. Carry out a careful inspection of the area to ensure that the mast is free from cracks. If mast cracks are present, STOP. Replace the airframe.
5. Carefully cover the surrounding area of the brackets, so that cutting dust and material does not contaminate the engine or adjacent surfaces.
6. Cut the ears off the existing brackets using a Dremel or similar tool. Do not attempt to remove the parts welded to the mast, to prevent any possibility of reducing the mast strength.
7. Deburr the bracket ends, and remove the covers and debris.
8. Thoroughly clean the mast area rear of the existing bracket area with Loctite pre-bonding 7070 cleaner or equivalent. Cut the rubber strip to match around the mast as shown.
9. Remove the backing strip from the self adhesive rubber and adhere to the mast. Firmly press onto the mast to ensure good adhesion.
10. Fit the bracket around the mast as shown and attach with the new fastenings. Tighten to 25Nm.
11. This should result in light compression of the rubber pad. If compression is excessive, fit a suitable U10 washer between the bracket face and the cabin, both mast sides.
12. Replace removed parts in accordance with the AMM.
13. Carry out a tool and loose article check.
14. Return the aircraft to service

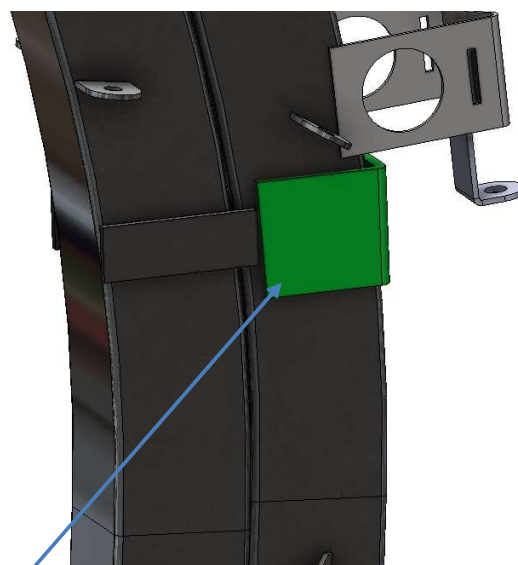
Service Bulletin

Illustrations

A 3D CAD model of a vertical mast assembly. A green bracket is mounted on the mast. A blue arrow points from a text box to the bracket. The mast is supported by a base structure.

Cut the ears of the brackets off, flush or to 1mm protruding from the mast. Deburr.

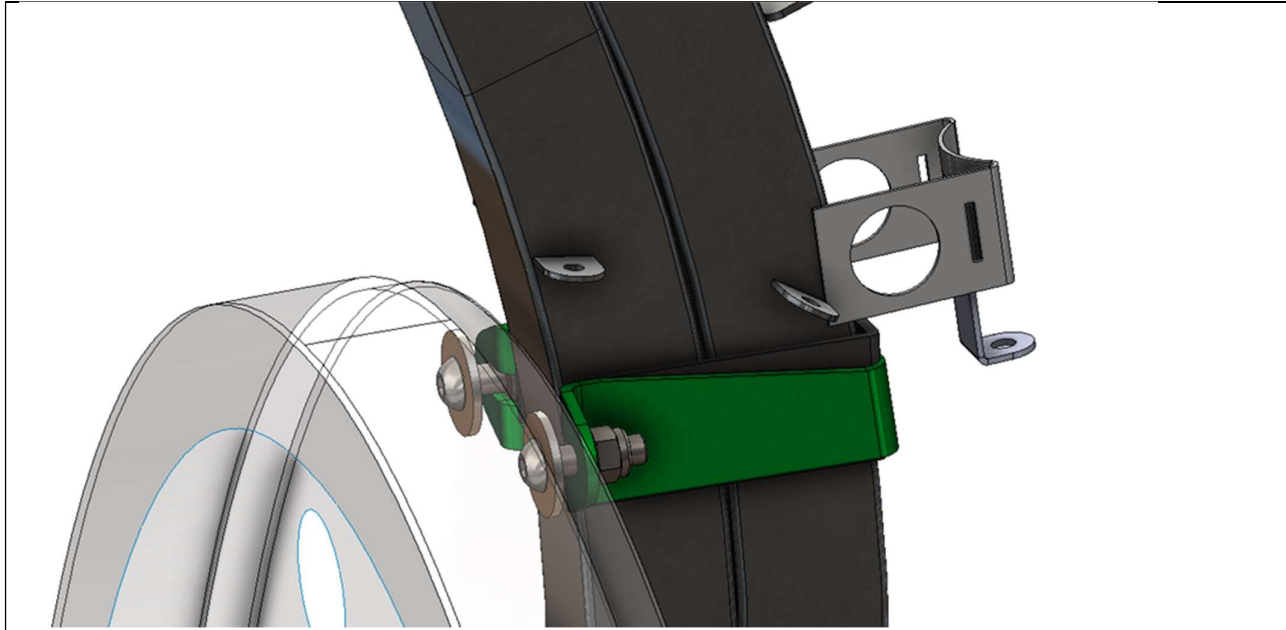
Pic. 1



Affix the rubber pad to the mast as shown.

Pic. 2

Service Bulletin



Fit the bracket as shown

Pic. 3

Completion of this Service Bulletin must be recorded within the aircraft documentation, in line with the requirements of the country of operation.

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

Nil

List of components (with purchasable part numbers)

Bracket kit 48461

Interchangeability

Not affected

Parts disposition

- a) Disposal requirements – Normal waste
- b) Environmental hazards of parts containing hazardous materials – Nil
- c) Scrap requirements (e.g. mutilate scrapped items beyond use) – Nil