RotorSport UK Ltd Service Bulletin

Title: MT-series Pre-rotator reinforcement stay		
SB No.: 066 Iss1	**Related documents** MC No: 242 CCAR No.: 034	**Compliance Category:** **~~OPTIONAL~~** ~~or~~ **RECOMMENDED or** **~~MANDATORY~~**
Applicability		
Aircraft type & model: **MT-03, MTOsport**	**Aircraft serial Nos. affected:** **RSUK/MT03/any, RSUK/MTOS/any**	

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 aluminium pre-rotator bracket on a number of MT-03 and MTOsport subject to hard usage has been found with a small crack. Fitment of a strengthened bracket under Service Bulletin SB-027 has not entirely remedied the problem.
A reinforcement stay is now available and can easily be fitted to provide greater support to either the standard or the strengthened pre-rotator bracket. The stay is supplied with required fasteners as service kit RSD7227.

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: A3-7 authorised engineer.
Estimated man-hours to complete the task as a standalone item are: 0.5hrs

Tooling required

Conventional hand-tools only

Weight and Balance Effects

Additional weight approx. 70g, no significant effect on CG

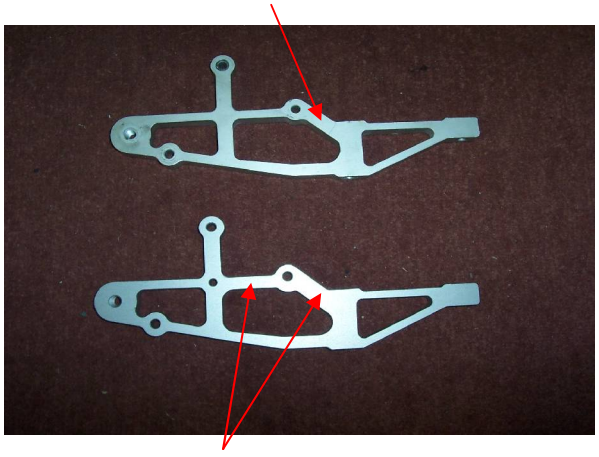
Manuals affected

AMM's RSUK0012 (MT-03) and RSUK0044 (MTOsport) are amended to recognise Modification MC-242 and this Service Bulletin.

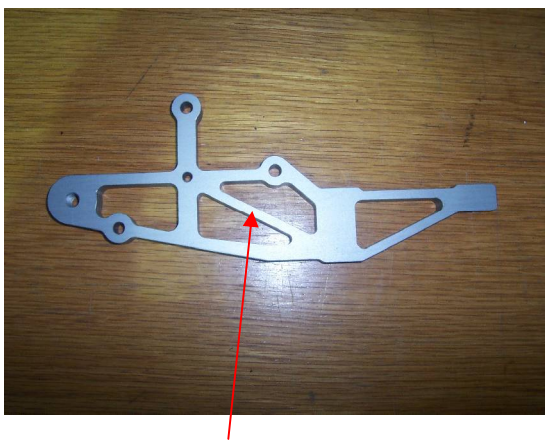
Previous Modifications that affect the SB

As a result of progressive design changes and Service Bulletin -027 there are three generations of pre-rotator bracket in service, all will accept this modification.

(1) Original under RSD5023



(2) Thicker webs under M.PR01.06.01.001



(3) Additional web under M.PR01.06.01.003

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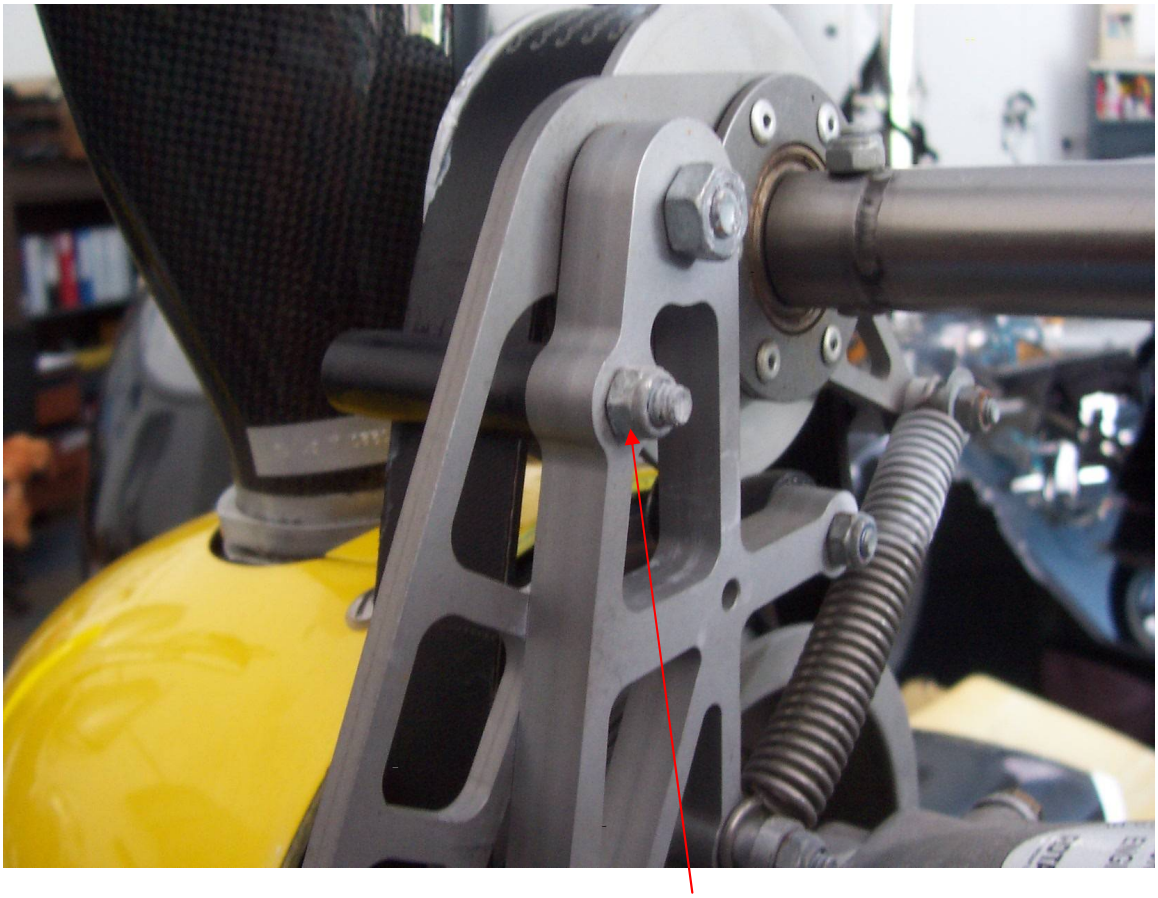
Accomplishment instructions (Action required to implement this bulletin):

Effective date of SB 15 August 2013

There is no MPD (or other outside body equivalent documentation) relevant to this SB.

The two maintenance manuals RSUK0012 and RSUK0044 make reference to the pre-rotator in Section 9 g)

(i) Assembly instructions



Working adjacent to the pre-rotator pulley hold the M6x60 capscrew with an allen key and release the nyloc nut. Remove the capscrew from the brake tube and dispose of both fastener parts.
Fit the M6x65 screw through the tube and re-assemble to the bracket. Fit the new pre-rotator stay using a new nyloc nut and tighten finger-tight only.

If the brake tube has a flat worn on to its surface rotate the tube so that this is away from the belt.

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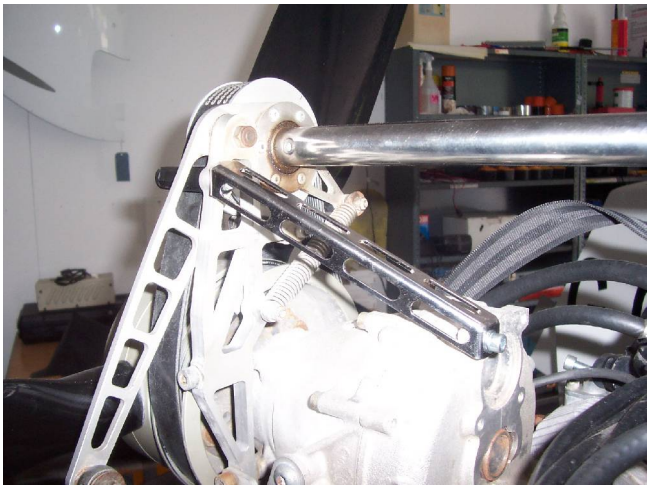
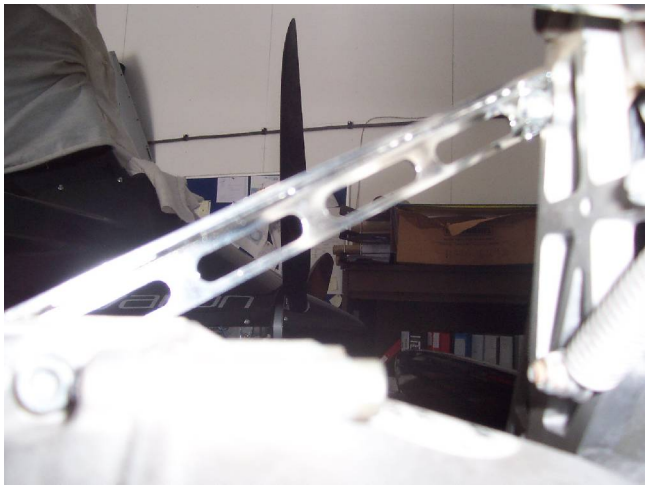
Examine the spare mounting at the top of the gearbox and check that it and the M6 thread are in good condition

Move the stay into position and check the clearance between the inner face of the stay and the bracket of the gearbox. Select M6 plain washers to just fill the clearance then fit a further washer to the M6x16 capscrew and screw into place with Loctite243 on the threads.

Tighten the lower capscrew and upper nyloc nut. There should have been no disturbance of the pre-rotator system and no adjustment is required.





Finished installation

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(ii) Inspections or work to perform on parts removed - none

(iii) Testing instructions – with the aid of an assistant turn the master switch on, hold the control stick fully forward and operate the pre-rotator. Verify that the bendix cylinder (on the rotor head) extends and the pre-rotator cylinder (on the gearbox) slowly retracts (in that sequence). Turn master switch off

(iv) Inspection record to be kept – Complete the implementation worksheet at the end of this document and store with the aircraft records. There is no secondary inspection requirement for this tasking.

(v) Task limitations – must only be carried out by an A3-7 approved person.

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

No parts are manufactured during implementation of this SB--066

List of components (with purchasable part nos)

Pre-rotator reinforcement kit RSD7227 contains all parts required

Interchangeability

All parts are subsequently interchangeable by virtue of packing washers used during installation

Parts disposition

a) Disposal requirements – no fluids involved
b) Environmental hazards of parts containing hazardous materials -none.
c) Scrap requirements – discard old fasteners, preferably for metal recycling

Documentation (Service Bulletin Completion action)

a) Entries within the aircraft logbooks: CAA BCAR A3-7 Authorised Person to certify that the work is completed by writing *'SB-066 Pre-rotator reinforcement stay.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 (attached). This must contain a PMR statement, and a final check item that no tools or equipment have been left within the aircraft)

c) A Permit Change Application document is not required.

d) PMR or Permit Flight Release form requirements are contained in the Implementation Worksheet.

Document approval signatures			
Engineering Manager	**CVE (as required)**	**Chief Test Pilot (if flight performance or safety effect)**	**Head of Airworthiness**
Gerry Speich Aug 8 2013 7:22 AM	David Starkey Aug 8 2013 4:14 PM	**Not required**	Andrew Lyons Aug 15 2013 9:49 AM

Service Bulletin implementation Worksheet

Aircraft type:	**Serial no:**	**G-**
Worksheet completed by:		**Document ref:**
Worksheet cross-checked by (if applicable):		**SB-066 Iss1**

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 01.07.13 MTOsport - RSUK0044 Iss7 of 01.07.13 (Delete as applicable)

Note: attach SB sheets to this document

Task	Notes	Eng'r check/date	Inspector check/date
Upper fastener replaced	Nyloc nut in safety		
Bracket fitted	Number of packing washer used		
New lower fastener fitted	Loctite 243 used		

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