

RotorSport UK Ltd

Service Bulletin

This form is the response from RotorSport UK Ltd against a problem found in the product either in service or test, which requires an immediate action.

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.

If any problems with carrying out the work authorised, contact RSUK immediately on 44(0)1588 650769, or email info@rotorsport.org.

SB No.: 038 issue 1

CCAR No.: None

Classification:

Aircraft type & model
(applicability)
RotorSport UK MT-03,
MTOsport and Calidus series

Aircraft serial Nos. effected
RSUK/MT-03/all
RSUK/MTOsport/all
RSUK/Calidus/all

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

Effective date: 12.01.11

Problem description & cause of problem if known

The versatility of the MT03, the MTOsport, and now the Calidus, means that many schools and pilots are using the aircraft in rain. This, together with rough field use, can result in damage to the propeller blades' leading edges, and pilots have requested permission to fit "Prop Tape" to the leading edge of the blade.

After evaluating a number of proprietary materials RSUK have produced a service kit based on a self-adhesive film originally developed for protection of helicopter rotor-blades. This kit is available as RSD4600 and may be fitted by the pilot or other CAA authorised person. It may be fitted to a new propeller or to an in-service propeller, the latter subject to the note below.

Note: It is essential that any surface defects in the propeller are examined and if appropriate rectified before fitment of the tape, as there must be no air-bubbles under the tape after installation. Instructions for assessment of damage, together with instructions for repair of minor damage are contained within the relevant aircraft Maintenance Manual (Section 9 f):

- MT03 RSUK0012
- MTOsport RSUK0044
- Calidus RSUK0061

Safety effect

Improved – reduced risk of propeller damage.

Weight and CG effect

Negligible

Continued Airworthiness / maintenance aspects

The Pilot's Handbooks require visual inspection of propeller as part of the pre-flight inspection – any degradation of the prop tape must be noted during this inspection. Note - should a piece become dislodged in flight there may be a slight increase in vibration and/or noise, this will not be detrimental to safe flight.

Action required to implement this bulletin:

1. Fitting new tape

WARNING – during the procedure below the propeller will be rotated. Ensure that both mag switches are off and move the propeller only in the normal direction of rotation.

- i) Wash each blade of the propeller with warm soapy water to remove any dirt build-up, dead insects etc. Carefully examine each of the blades and if any damage is evident then assess and rectify in accordance with the Aircraft Maintenance Manual
- ii) Using aerosol solvent Amberklene LO30 degrease each blade in the area where the tape is to be applied.
- iii) Place a length of masking tape at right-angles to the trailing (thinnest) edge of each blade 400mm from the tip. The position where this masking tape meets the leading (thickest) edge of the blade denotes the starting position for the square-cut end of the prop tape.
- iv) Partially remove the backing strip from the square-cut end of a length of prop tape and place the tape equally

RotorSport UK Ltd

Service Bulletin

This form is the response from RotorSport UK Ltd against a problem found in the product either in service or test, which requires an immediate action.

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.

If any problems with carrying out the work authorised, contact RSUK immediately on 44(0)1588 650769, or email info@rotorsport.org.

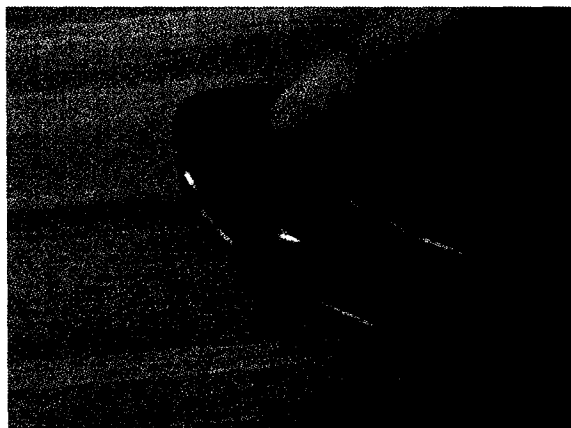
SB No.: 038 issue 1	CCAR No.: None	Classification:
Aircraft type & model (applicability) RotorSport UK MT-03, MTOsport and Calidus series	Aircraft serial Nos. effected RSUK/MT-03/all RSUK/MTOsport/all RSUK/Calidus/all	OPTIONAL or RECOMMENDED or MANDATORY

around the blade leading edge. Using a mist of lightly-soaped water wet the blade area where the tape is to be placed. Using a rubber squeegee (or finger and thumb) progressively press the prop tape onto the blade whilst expelling the water solution and peeling-off the backing strip.

v) As the prop tape reaches the tip of the blade there will be surplus material with crescent-shaped edges. The centre section of the tape needs to be stretched so that this surplus material can be pushed onto the blade surface without creasing. It will be found that heating the tape with hot water, or preferably a source of steam (e.g. domestic wallpaper stripping machine or hand-held steam-cleaner) enables this stretching to be accomplished and the tape pressed flat and without creases or air-bubbles. **CAUTION:** to avoid any personal injury or damage to the propeller construction direct the flow of steam at the tape only, never directly at the fingers or the propeller surface.

NB: For further guidance refer to the installation video available on the RSUK website

vi) Remove the masking tape markers and place the aircraft in a warm place (>20 degC) overnight to allow the prop tape's adhesive to cure.



Finished tape at the tip – note the crescent shape



Finished tape at the root end – note the square shape

NB: The tape is completely transparent and in the photographs above the edge has been highlighted for clarity

RotorSport UK Ltd

Service Bulletin

This form is the response from RotorSport UK Ltd against a problem found in the product either in service or test, which requires an immediate action.

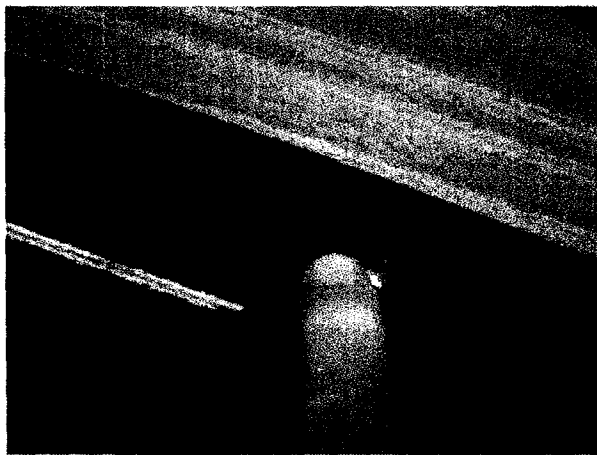
Upon completion of the action, the person responsible must enter details into the aircraft logbook/worksheet with the SB and/or CAA MPD (Mandatory Permit Directive) number and sign as normal.

If any problems with carrying out the work authorised, contact RSUK immediately on 44(0)1588 650769, or email info@rotorsport.org.

SB No.: 038 issue 1	CCAR No.: None	Classification: OPTIONAL or RECOMMENDED or MANDATORY
Aircraft type & model (applicability) RotorSport UK MT-03, MTOsport and Calidus series	Aircraft serial Nos. effected RSUK/MT-03/all RSUK/MTOsport/all RSUK/Calidus/all	

2. To replace damaged tape.

i) Using a scalpel or sharp knife carefully lift the tape at the square corner nearest to the propeller hub. Do not damage the propeller gel-coat.



ii) Using finger and thumb grip the raised edge and progressively peel-off the tape.

iii) Clean the blade surface with a rag moistened with solvent such as Amberklene L030

iv) Inspect the blade surface for damage – rectify if necessary as described in the Aircraft Maintenance Manual

v) Fit a new section of tape as described in para 1 above

Effect on Pilots Handbook or Maintenance Manual?

Yes, comments to be added in the next issue of the Pilot's Handbook and Maintenance Manual

Service Bulletin Completion action:

Issue Permit Maintenance Release Certificate

CAA BCAR A3-7 Authorised Person or Pilot to certify that the work is completed by writing 'SB-038 propeller protection tape RSD4600 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 or Pilot together with their CAA Authorisation number or Pilot's Licence number.

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

Quality Conformance Manager 	Engineering Manager 14/01/11	Chief Test Pilot (if flight performance or safety effect) 14/01/11	Structures (where required) 13/01/2011	
Document completion date:	Issued to:	When	Issuer name	Signature
	Internal			
	CAA			
	Owners			