

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 gerry@rotorsport.org.

SB No.: 007 issue 1

CCAR No.: None

Classification:

Aircraft type & model (applicability)
RotorSport UK MT-03

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

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

Problem description & cause of problem if known

Problem;

A factory manufacturing dimensional variance has been found on one of the UK fleet on the through bolt hole in the keel for the rudder pulleys. This hole may on one side of the keel be a slot instead of a 5mm hole, used by the factory to allow pulley alignment with the keel. A slot is an acceptable rework by the factory, provided the pulley assembly is lined up correctly with the keel. However, vertical positional variance of the bolt may lead either to the cable rubbing on the underside of the tail or on the top of the front rudder mounting bracket. This service bulletin is to address that variance.

Problem solution:

If the rudder cable rubs on the bottom of the tail, then the tail is raised with 4 1.5mm thick M6 18mm od washers, one between the spacer and the keel (or tail) on each of the four mounting bolts.

If the rudder is rubbing on the top of the mounting brackets, then replace the rudder pulleys with increased diameter pulleys from RSUK. Recheck and reset if required the rudder cable tension.

If the pulley is misaligned, loosen and reset square. If required, it is permissible to fit an additional 5mm bore zinc plated plain washer between the keel and pulley, provided the pulley bolt thread still shows through the nylock nut. If not possible, contact RSUK.

Effective date: 20.10.08

Pre test for applicability:

Check on next service for misalignment of pulleys (pulley rubbing on keel) and for contact to tail underside or tail mounting bracket (front).

Parts required to implement the Service Bulletin:

1 pair pulleys or 4 off M6x18mm plain washers (available FOC from RSUK) if a problem found



Picture of rear rudder cable pulleys

Action required

1. Remove key and ensure mag switches are OFF.
2. Check that pulleys are running free, and not rubbing on the keel.
3. If rubbing on the keel, loosen nut, straighten, and tighten. If unsatisfactory, fit additional washer between keel and pulley on the side that is rubbing, and tighten square.. Ensure at least two threads show through the nut. If unsatisfactory contact RSUK for advice.
4. Check clearance between rudder cable and tail, and cable to front mounting bracket.

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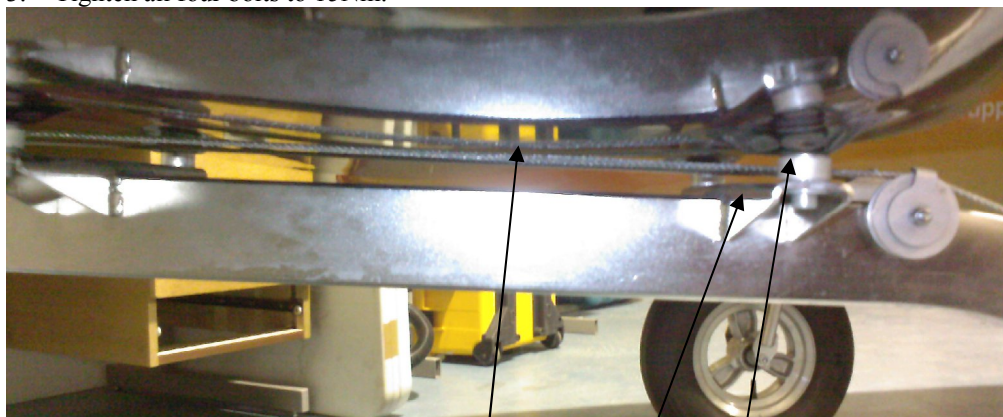
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5. If the cable is rubbing on the tail, follow routine a) below.
6. If the cable is rubbing on the front mounting bracket follow routine b) below.
7. If no problem found, note SB applied in logbook and that 'no problem found'.
8. Notify RSUK of your finding so that the records can be kept.

a) Increase tail height.

1. Loosen all four tail mounting bolts by several turns. Remove two left side bolts, add a 1.5mm washer between the each spacer and mounting bracket, and replace bolt with loctite 243 liberally spread on the threads of the bolt. Do not tighten yet.
2. Repeat on right side.
3. Tighten all four bolts to 15Nm.



View under the tail.

Check clearance of cable to tail and the bracket. Add washer between each spacer and tail/bracket if required

b) Increase pulley diameter

1. Loosen rear pulley bolt. Turn cable retainer over cable on the nut side, and lift cable off – minding that fingers are not caught between the cable and the airframe or pulley.
2. With cable loose, remove pulleys and replace with new pulleys and cable retainers (coloured blue for identification).
3. Refit as a reverse of disassembly.
4. Ensure cable retainers are positioned correctly, and not rubbing on the cables. Tighten nut.
5. Check rudder cable tension. When pulled under a 2Kg load, the cable should stretch between 14 and 24mm..
6. If cable tension incorrect, adjust equally on both turnbuckles, and re wirelock.as per industry standard.

See pictures below for how to check cable tension

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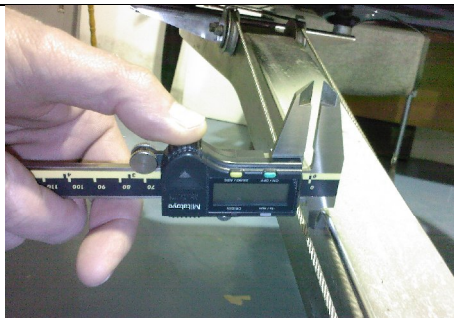
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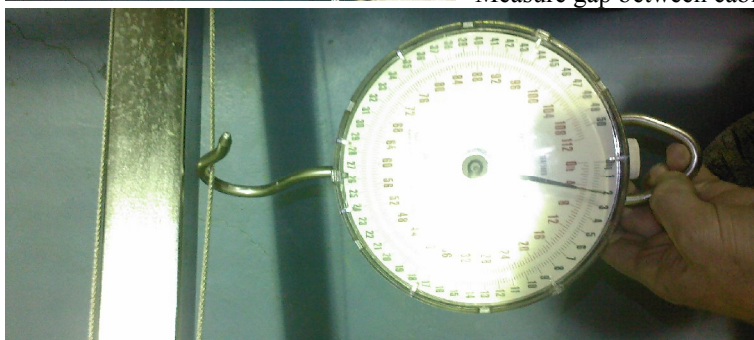
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Measure gap between cable and tail boom mid way between pulleys.



Apply a tensile load of 2Kg, and re measure gap. Cable should move between 14 and 24mm. Adjust as required.

Effect on Pilots Handbook or Maintenance Manual?

Yes, to be incorporated in the latest revision of maintenance manual.

Quality Inspection requirements after action: Checking of installation after completion

1. Check that pulley bolts are tight, and that the pulley cable retainers are in place and correctly located.
2. Check that the cable tension is correct.
3. Check that the tail bolts are correctly tightened to 15Nm and with loctite 243.
4. REMEMBER that you have adjusted a primary flight control, and a logbook inspection signature is required by a CAA Authorised Engineer!

Owner/operator to certify that the work is completed by writing the SB number and action in the logbook white pages, and record the action in the pink pages entitled 'one time requirements'. Both entries must be signed by the owner /operator, together with either their CAA approval no or their pilots licence number.

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

Quality Conformance Manager <i>[Signature]</i> 2/11/08	Engineering Manager <i>[Signature]</i> 2/11/08	Chief Test Pilot (if flight performance or safety effect)	Structures (where required) ✓ <i>[Signature]</i> 02/11/08	
Document completion date:	Issued to:	When	Issuer name	Signature
	Internal			
	CAA			
	Owners			
	PFA/BMAA Inspectorate	No		