

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.: 014 issue 3

CCAR No.: None

Classification:

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

Aircraft type & model (applicability)
RotorSport UK MTOsport series

Aircraft serial Nos. effected
RSUK/MTOsport all

Problem description & cause of problem if known

The MTseries gyroplane pilot enclosure is retained to the airframe via several fastening points, two of which are via short metal straps at the lower rear of the enclosure. The straps are welded to the airframe, and one has been found to have broken free in service due to vibration.

Problem solution:

Two options are available; a) reweld the bracket to the airframe, (or weld a replacement bracket to the airframe) or b), accepting that a CAA approved welder is unlikely to be available in the field, fit the same or a replacement bracket retained to the airframe via two screws.

Effective date:
12.01.10

Action required to implement this bulletin:

Option a) - re-weld in place by an RSUK/CAA A8-10 approved welder. This will require:

1. Disconnect the battery negative lead from the airframe and disconnect instrument panel by disconnecting the connectors between the instrument panel and the wiring harness. This is to protect aircraft electronics. Remove excess fuel and ensure filler caps are tight.
2. Raise the aircraft off the ground using a sling wrapped around the hub bar to a suitable chain hoist or winch. Ensure the aircraft is secure and unable to drop.
3. Remove the suspension bow bolts, and move it out of the way rearwards as required, still connected to the brakes and wheels.
4. Remove the bracket, and if the bracket has failed, grind away the remains on the airframe.
5. Grind back any remaining weld on the bracket and airframe, taking care not to overgrind the parent metal.
6. Clamp the original (or new if required) bracket to the airframe, aligned to the enclosure hole.
7. Weld all around the contact area to the airframe, (see welding notes) , protecting the surrounding surface from weld splash.
8. Clean the weld, and check as far as possible for a good weld.
9. Re-attach the enclosure and the suspension bow – use new nylocks.
10. Lower the aircraft and remove straps etc. Reconnect the instrument panel. connector blocks, then reconnect the battery negative lead to the airframe

Note that it is also permissible to weld two broken parts of a bracket together with a suitable seam weld.

Option b) – reconnect bracket to airframe with M4 fastenings:

1. Remove ignition key and isolate engine starter solenoid
2. Chock wheels.
3. If required, remove original bracket from aircraft.
4. The bracket is already bent under the suspension bow (see photo). Clamp in its original position, removing weld if required so that the bracket sits flush to the suspension bearer.
5. Drill two 4.1mm holes through the bracket and suspension bow, in the centre of the bent over flange as shown in the photo. Remove burrs.
6. Fit two RSD6220 M4x12 dome head screws with RSD6007 nylock nuts and RSD6023 plain washer to clamp the bracket to the mounting frame. Tighten all fastenings securely.
7. If undone, refit fastening to enclosure, with a new nylock nut.
8. Refit starter solenoid cable and remove chocks.

Parts required to implement the Service Bulletin

- 1 x RSD4483 Bracket blank
- 2 x RSD6220 M4x12 dome head screw
- 2 x RSD6007 M4 nylock
- 2 x RSD6023 M4 plain washer

RotorSport UK Ltd

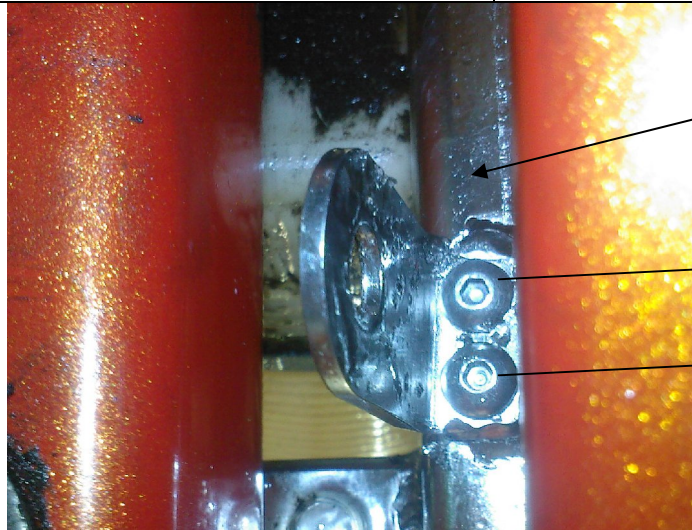
Service Bulletin

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.: 014 issue 3	CCAR No.: None	Classification: OPTIONAL or RECOMMENDED or MANDATORY
Aircraft type & model (applicability) RotorSport UK MTOsport series	Aircraft serial Nos. effected RSUK/MTOsport all	



Suspension carrier

Approx 9mm between screw holes.

Note that holes must be 8mm from the rear edge of the suspension carrier, otherwise the nut will ride up the bending radius of the flange.

Photo of repair incorporated

Welding requirements

1. Preparation of weld area

Remove any lubricant deposits by cleaning with a lint-free cloth and suitable halogen-free solvent.
Remove any surface debris by brushing with a stainless-steel wire-brush.

2. Welding

Position and clamp the parts in place

Set the TIG welder for job +ve, electrode -ve.

Using an electrode 2.4mm diameter, filler metal 316 stainless steel and heat-setting 60-70amps produce continuous fillet welds in a single run.

Ensure that filler metal is present in the whole welded length so that a joint "fused only" is not created.

3. Clean-up

Remove burn marks from the weld and areas adjacent using a stainless-steel wire-brush followed by Scotchbrite pads or rubbing blocks if required.

Do not use any acid treatment for clean-up (difficult to remove)

4. Inspection

Using a magnifying glass at least 4x and good illumination inspect the weld to ensure that there is a high build for the whole length of the weld with no inclusions or voids present and that the start and end of each run are of uniform shape.

Effect on Pilots Handbook or Maintenance Manual?

No, other than to be noted in the next issue of the maintenance manual

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.: 014 issue 3	CCAR No.: None	Classification: OPTIONAL or RECOMMENDED or MANDATORY
Aircraft type & model (applicability) RotorSport UK MTOsport series	Aircraft serial Nos. effected RSUK/MTOsport all	


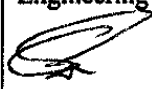
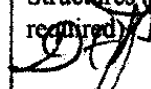
Service Bulletin Completion action:

Issue Permit Maintenance Release Certificate

Ensure all fastenings are secure.

CAA BCAR A3-7 Authorised Person to certify that the work is completed by writing 'SB-014 Enclosure bracket repair 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.

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

Quality Conformance Manager  29/1/10	Engineering Manager  G Khan 29/1/10	Chief Test Pilot (if flight performance or safety effect) NOT RECD	Structures (where required) 	
Document completion date:	Issued to: Internal	When	Issuer name	Signature
	CAA			
	Owners			