

RotorSport UK Ltd

Service Repair Request and Evaluation/Approval

This form (Part 2 of 2) is the response from RotorSport UK Ltd to a Service Repair and Evaluation/Approval request, which specifies the company authorised repair method. Deviation from this method renders the authorisation ineffective.

Upon completion of the repair the repairer must enter details into the logbook/worksheet with the repair 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.

Repair No.: 014 Issue 1, 11.12.12	CCAR No.: None Mod approval No. MC-225	Repair classification: MAJOR MINOR
Aircraft type: MT-03 (all aftermarket only)	Aircraft serial No.: OPEN (first application G-JBRE RSUK/MT03/016)	

Repair problem description & cause of problem if known:

Aircraft G-JBRE suffered a broken attachment weld rotor head bridge around the upper pre rotator bearing plate.

NB: The weld repair may only be carried-out by a CAA approved welder.

Approval statement.

The technical content of this document is approved under the authority of the UK CAA Design Organisation Approval Ref: DAI/9917/06.

Tooling required. G Clamp to hold the bridge in place whilst welding.

Weight and balance. There is no effect on the issued AWC for the aircraft.

Manuals affected. There is no effect on the aircraft POH or AMM.

Previous modifications affecting this SRA. None.

Accomplishment instructions.

1. Remove the upper rotor head and disassemble as required. Reference the AMM RSUK0012.
2. The rotor bridge must be straightened and bearing plate re-aligned using suitable equipment. Correct alignment is seen by the failed weld properly abutting itself. Hold in place with a G clamp.
3. Weld the underside of the bearing plate to attach it to both side plates as shown on the drawing. After welding, cut back the failed area to expose the base material. Weld over the failed area and make good.
4. Add two welds to the lower bearing plate as per the upper plate, as drawing.
5. Weld to be as per welding notes below.
6. Check bridge for distortion after welding and adjust as required.
7. Reassemble as reverse of disassembly, referencing RSUK0012. Replace nylocks and split pins as required.

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

Service Repair Request and Evaluation/Approval

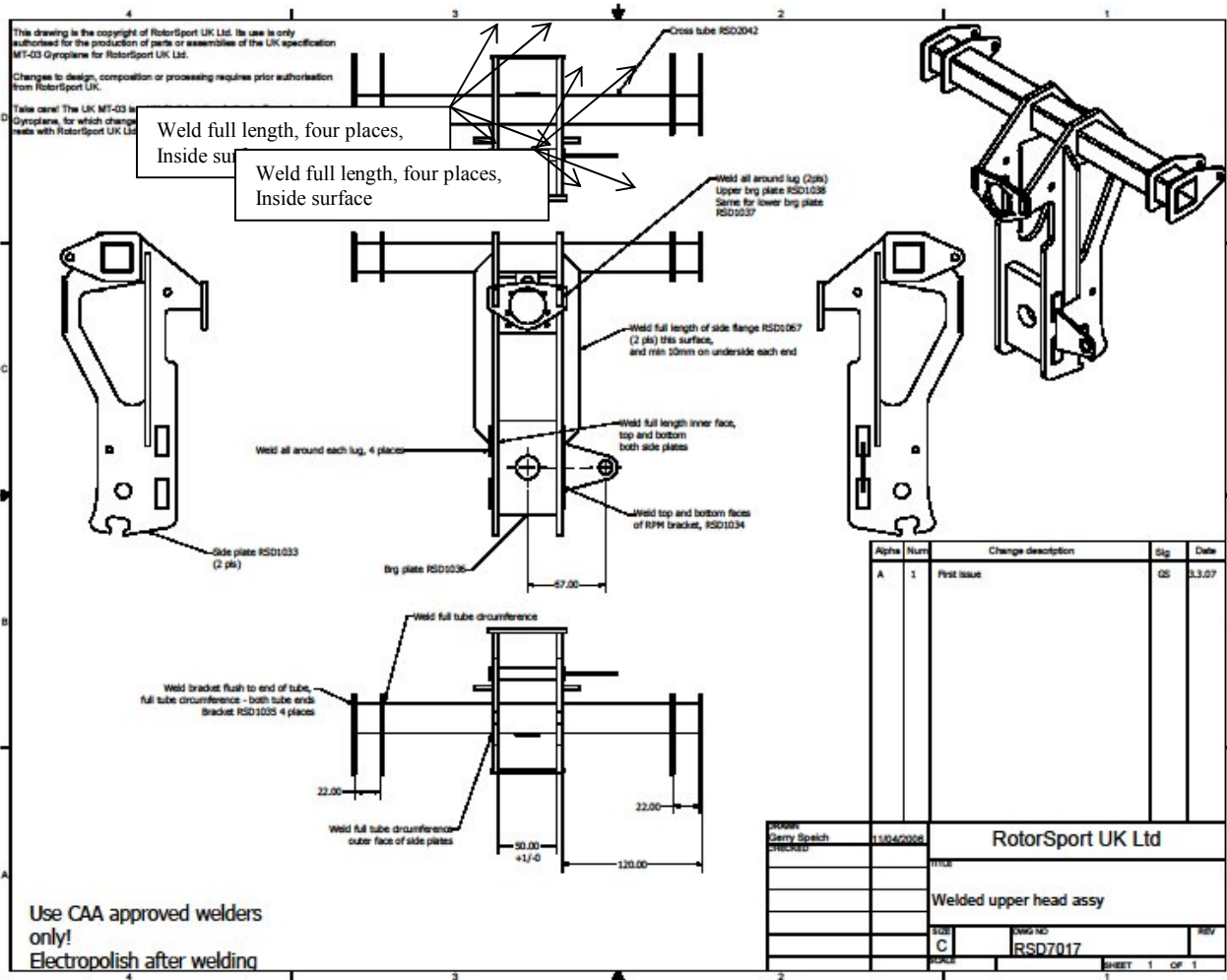
Remove burn marks from the weld and areas adjacent using a stainless-steel wire-brush followed by Scotchbrite pads or rubbing blocks if required.
Do not use any acid treatment for clean-up

4. Inspection

Using a magnifying glass at least 10x 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, the weld is free of cracks, and that the start and end of each run are of uniform shape.

Material requirements. None.

List of components require to complete this SRA. None.



Special tools & Health and Safety requirements, and/or components required for repair:
No special tools. Observe usual welding operational requirements.

Quality Inspection requirements after repair:
After welding check alignment of upper and lower bearing plates.

RotorSport UK Ltd

Service Repair Request and Evaluation/Approval

CAA BCAR A3-7 Authorised Person to certify that the work is completed by writing 'SRA-014 rotorbridge 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.

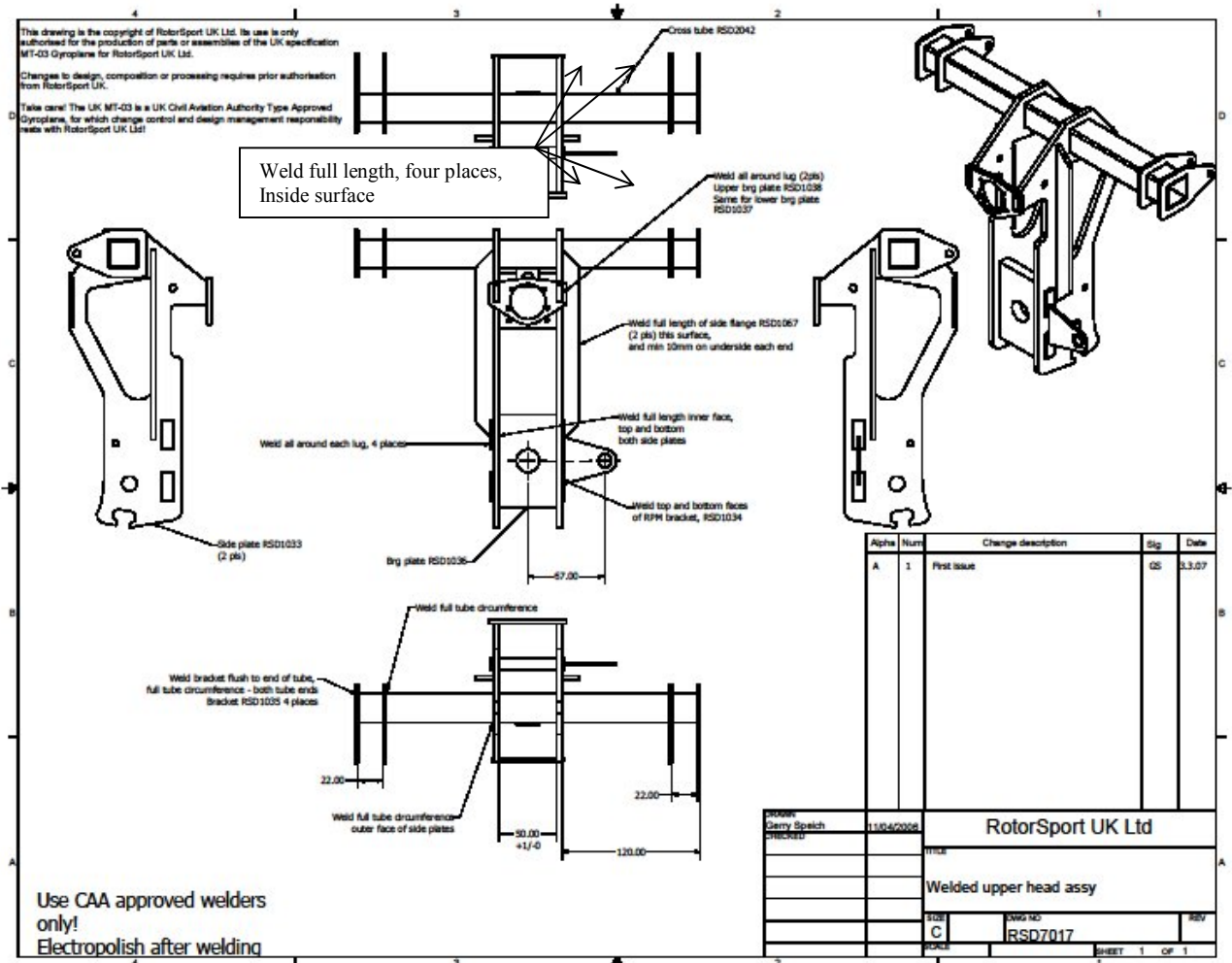
The technical content of this document is approved under the authority of the UK CAA Design Organisation Approval Ref: DAI/9917/06

Service repair authorised by: (name, signature, and date of signature)

Quality Conformance Manager	Engineering Manager	Chief Test Pilot (where an effect on flight performance or safety) Not required.	CVE	Head of Airworthiness
-----------------------------	---------------------	--	-----	-----------------------

Document completion date:	Issued to:	When	Issuer name	Signature
	Internal			
	CAA			
	Owners			
	PFA/BMAA Inspectorate			

Form F023 Issue 2 Part 2 of 2



RotorSport UK Ltd

Service Repair Request and Evaluation/Approval

Aircraft serial no. Registration G-	Service Repair Implementation Worksheet	Date raised: Raised by:	
Purpose – record service repair implementation actions taken, then to inspect aircraft and return to service.		Document reference: SRA-014	
Maintenance manual referred to and issue level/date:			
Note; attach any secondary sheets to this document			
Task	Notes	Eng'r check/date	Inspector check/date
Record aircraft service hours (from log-book)	Aircraft service hours:		
Satisfactory alignment of bearing plates after welding.			
Reassembly to aircraft: Pitch and roll bolt split pins in place			
Head greased			
Rotor teeter bolt split pin in place			
Rotor greased			
Rotor head controls reconnected and operating properly to control limits			
Welder approval number	Record CAA approval ref.		
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.			
Engineer/Inspector signature Name: CAA Authorisation code :		Date of work Location where work completed	

PLEASE FAX THIS BACK TO 01588650769 (or send by email to info@rotorsport.org)