RotorSport UK Ltd Service Bulletin (Permit)

Title: Change pedal position (MTOS)		
SB-103 Iss1	**Related documents** Modification: MC-None CCAR No.: None	**Compliance Category:** **OPTIONAL** or ~~**RECOMMENDED or MANDATORY**~~
Applicability		
Aircraft type & model: **MTOsport**	**Aircraft serial Nos. affected:** **RSUK/MTOS/any**	
The maintenance manual to be referenced is this stated or subsequent issue.		RSUK0044 Iss: 6

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 505060, or email compliance@rotorsport.org.

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

Documentation (Service Bulletin Completion action)

a) Entries within the aircraft logbooks, eg CAA BCAR A3-7 Authorised Person to certify that the work is completed by writing *"SB-103 Pedal position change 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). A duplicate signature is required.

c) Type approval change application document. This is required where the SB will affect the type approval limitations, eg airspeed change or MTOW change and enables the owner to request the permit change required

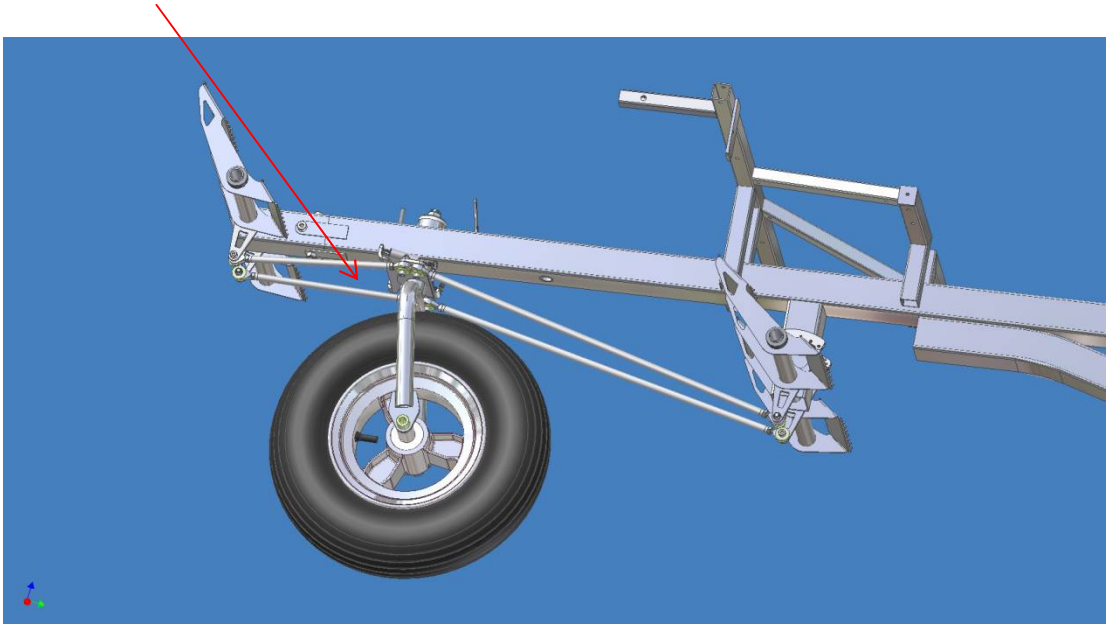
d) Any other Permit Maintenance Release to Service form requirements.

e) The engineer must decide whether a flight test is required (iaw CAP-1038)

Document approval signatures			
Engineering Manager	**CVE (as required)**	**Chief Test Pilot (if flight performance or safety effect)**	**Head of Airworthiness**
Gerry Spetch Oct 19 2015 6:52 AM	Not required Graham Shaw Oct 19 2015 9:25 AM	Not required Graham Shaw Oct 19 2015 9:25 AM	Andy Lyons Oct 19 2015 1:26 PM

Reason and overview of the Service Bulletin (cause of problem if known)

On MTOsport gyroplanes the pilot's rudder pedal position is not adjustable but is determined by the length of the front keel's rudder pedal bracket, this being Short, Medium, Long, or Extra-Long. Since the front pedal assembly is linked to the nose-wheel fork (which in turn is linked to the rear rudder pedals) if the front fabrication is changed from the original configuration then the two forward link rods must also be changed.



View of MT-03 rudder pedal system (MTOS is similar)

Manpower estimates

Accomplishment of this Service Bulletin requires the following personnel

(i) A3-7 Authorised engineer
(ii) Second authorised engineer or qualified gyroplane pilot

Estimated man-hours to complete the task as a stand-alone item are; 4.0hours

Tooling required

Hand tools only

Weight and Balance Effects

No significant effect and within the weight and CG limits approved under AAN29247

Manuals affected

POH RSUK and AMM RSUK are not affected.

Previous Modifications that affect the SB

None

Accomplishment instructions (Action required to implement this bulletin):

Effective date of this SB is 2 October 2015
There is no relevant MPD or other outside body documentation to be referenced.

Instructions

1. Park the aircraft on level ground in a location that will allow the nose to be lifted clear of the ground.

2. Remove the nose hatch to improve access

3. By means of a suitable cross-bar and clamps fitted across the rear-seat rudder pedals lock the rudder control system in the central position.

4. Lift the nose clear of the ground and rest the aircraft on its tail. Use mass-bags or other suitable weights on the keel to hold the aircraft safely in this position.

5. Disconnect the existing nose-gear links between the front pedals and the nosegear.

6. Remove the vertical and horizontal bolts retaining the rudder pedal bracket to the airframe and remove the bracket (complete with pedals and link-rods) from the cockpit.

7. Working on the bench transfer the rudder pedals to the new pedal bracket. Use new split pins, and make sure the ptfe sheet inside the pedal tube does not get lost! Using Loctite 243 fit the new link-rods to the rudder pedals, noting the fitment of “snubbing washers”

8. Refit the rudder pedal bracket to the airframe

9. Using Loctite 243 on the threads, connect the link-rods to the nose-gear and adjust the rod-ends so that:

- There is sufficient thread engagement on each rod-end and each locknut is tight
- Each pedal is set to the correct angle (57deg +/-5deg to the airframe keel, +/-1deg to each other)
- The nose-wheel is pointing straight-ahead +/- 1 degree
- The rudder offset angle has not been disturbed (should be 6degrees right +/-1degree)
- Remove the pedal clamps and check that full-and-free movement is obtained

See AMM RSUK0044 section 9 l) for full details of rudder system set-up.

10. Amend or replace the placard that declares the rudder pedal position to show the new position:

Pilot rudder pedal position in this aircraft is Long/middle/short

11. Refit the nose hatch

12. Arrange duplicate inspection of the work done.

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

No parts made during embodiment

List of components (with purchasable part nos)

M.ST07 (BG83) Rudder pedal bracket, Short

with M.ST15 (BG96) Push-rods, Short

M.ST06 (BG82) Rudder pedal bracket, Standard
with M.ST13 (BG92) Push-rods, Standard

M.ST08 (BG84) Rudder pedal bracket, Long
With M.ST14 (BG94) Push-rods, Long

M.ST39 (BG562) Rudder pedal bracket, Extra-Long
With M.ST40 (BG563) Push-rods, Extra Long

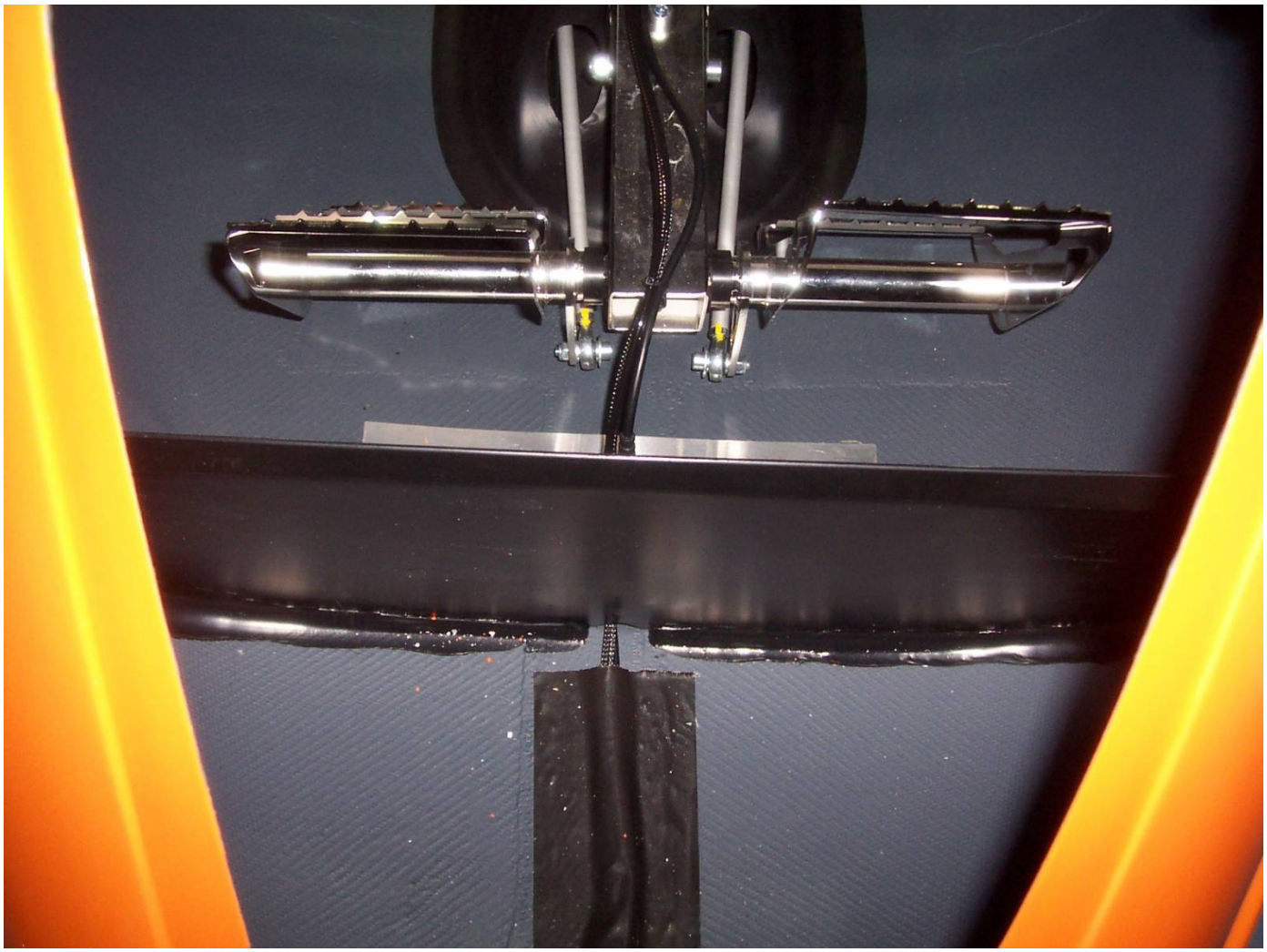
Interchangeability

Subject to the note in "Reason and Overview…" above, any configuration may be changed to any other

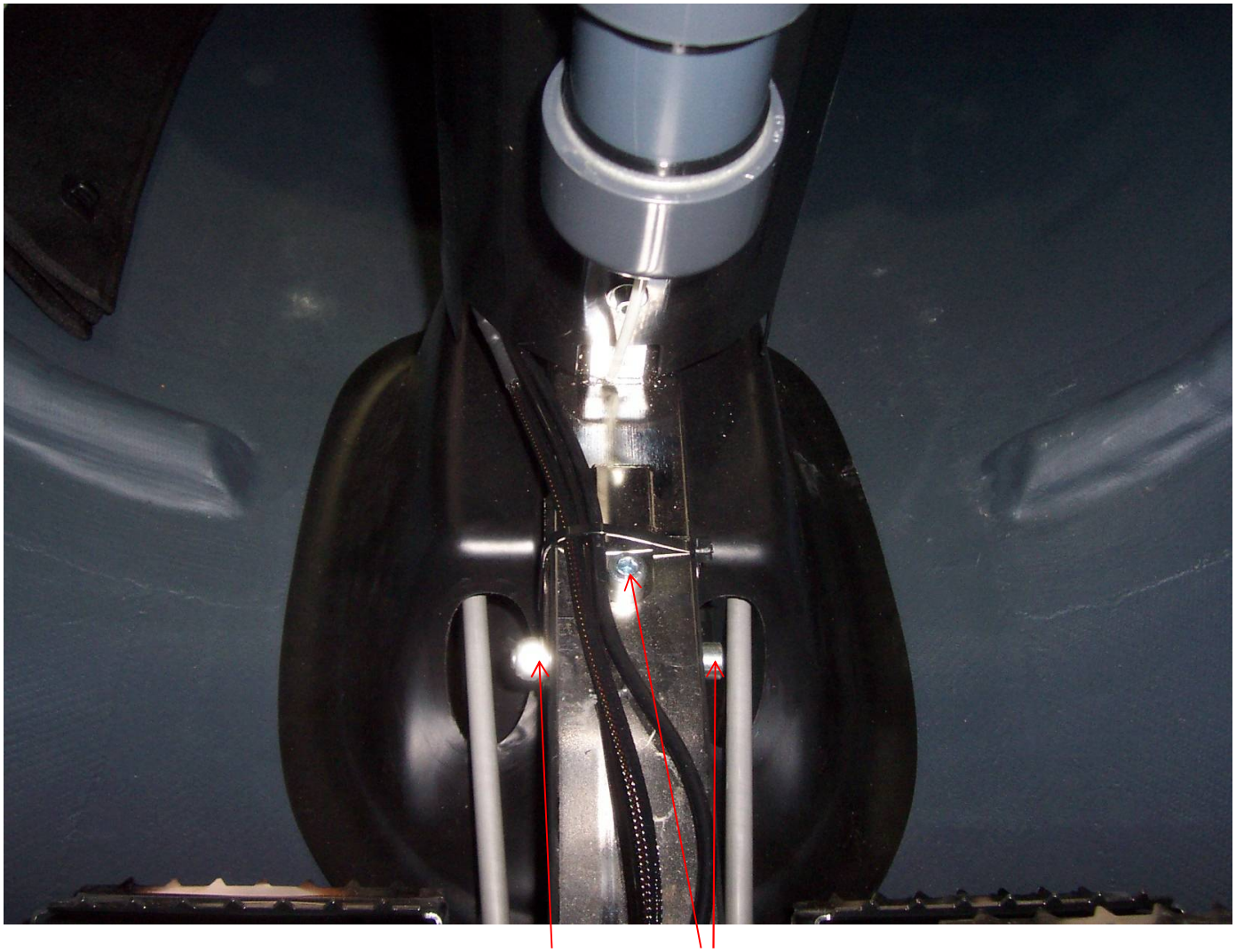
Parts disposition

a) Disposal requirements – destroy or retain the parts removed, at Owners/Engineers discretion
b) Environmental hazards of parts containing hazardous materials –not applicable
c) Scrap requirements (eg mutilate scrapped items beyond use) – not applicable

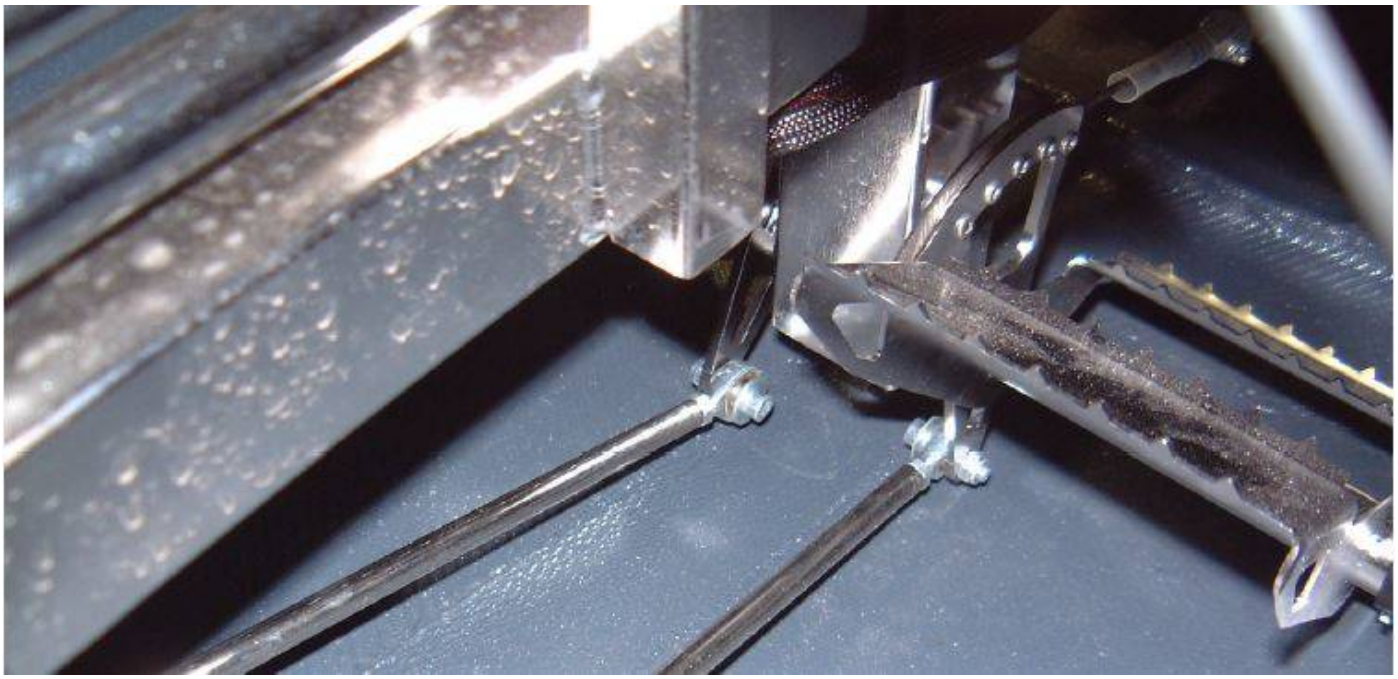
Photographs



Front pedal installation viewed through nose hatch



Bracket fasteners



Rod-end connections at rear pedals

Underside view - pedal connections to nose-wheel fork

Service Bulletin implementation Worksheet

Aircraft type:	**Serial no:**	**G-**
Worksheet completed by:		**Document ref:**
Worksheet cross-checked by (if applicable):		**SB-103 Iss 1**

Purpose – record service bulletin implementation actions taken to inspect aircraft and return to service.

Maintenance manual referred-to and issue level:	

Note: attach SB sheets to this document

Task	Notes	Eng'r check/date	Inspector check/date
Removal of existing installation satisfactory			
Bench rebuild of assembly satisfactory			
Replacement installation satisfactory			
Pedals, nose-wheel, rudder set-up iaw AMM RSUK0044	Duplicate signature required		
Full-and-free movement confirmed	Duplicate signature required		
Actual pedal angle to keel tube			
Placard amended or replaced			
A flight-test is / is not required	Delete as appropriate and state reason:		

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 PMR Authorisation ref :	Location where work completed