

Technical Note TN.JS-011

06 July 2012

TITLE

Rudder Pedal Main Tube and Locking Lever Replacement

REASON

The rudder pedal main tube and locking lever design has been refined.

DESCRIPTION

Replacement of the rudder pedal system main tube and locking lever on the JS1-A and JS1-B Revelation sailplane.

INSTRUCTIONS

See drawing D1A-1.21 issue 4.0

- A) Remove rudder pedal assembly from fuselage:
 - 1. Remove the seat bucket.
 - 2. Remove the centre console with rudder adjustment lever.
 - 3. Slide the rudder pedals fully back.
 - 4. Unscrew and remove the two M6 nyloc nuts and washers situated forward in the nose of the aircraft at the bolt retainer (D1A-1.21 Item 20).
 - 5. Unscrew and remove the two M6 nyloc nuts at the rear of the rudder pedal assembly at the front bracket (D1A-1.21 Item 4).
 - 6. Unscrew the M6 nyloc nut that bolts the guide tube (D1A-1.21 Item 2) to the floor of the cockpit.
 - 7. Gently remove the rudder pedal assembly being careful not to damage the studs' thread. Lift the guide tube upward first, then lift the front bracket off the studs and move the entire assembly back off the forward bolt retainer.
- B) Replace rudder pedal main tube and locking lever:
 - 1. Remove the rudder pedal springs (D1A-1.21 Item 12).
 - 2. Clip both the spring rudder locks (D1A-1.21 Item 16) off the eyelets.
 - 3. Unscrew the locking lever hinge bolt and remove (D1A-1.21 Item 33).
 - 4. Unscrew and remove the cable anchor bolt (D1A-1.21 Item 36).
 - 5. Drill out the two rivets in the front bracket (D1A-1.21 Item 4).

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- 6. Slide out the main tube weld (D1A-1.21 Item 1) through the slide lock mechanism (D1A-1.21 Item 13).
- 7. Increase the size of the slot on the Slide lock mechanism (D1A-1.21 Item 13) as indicated in Figure 1 with a mini grinding tool or other suitable tool.



Figure 1: Slide Lock Mechanism Slot Dimensions

- 8. Install the locking lever (D1A1.21 Item 14) with the M6 bolt to check the pins' clearance from the pin slot edges. If there is still interference, grind away the edges until the locking lever slides freely in and out of the slot.
- 9. Replace the main tube weld (D1A-1.21 Item 1) with the new supplied part.
- 10. Replace the locking lever (D1A-1.21 Item 14) with the new supplied part, by reinstalling cable anchor bolt (D1A-1.21 Item 36) with M4 nyloc nut and repositioning spring rudder locks (D1A-1.21 Item 16) on eyelets and installing the M6 bolt with M6 nyloc nuts.
- 11. Install the rudder pedal assembly into the aircraft, using the old M6 bolts.
- 12. After testing that the slide lock mechanism works by moving the rudder pedals backwards and forwards, re-drill the rivet positions on the main tube weld (D1A-1.21 Item 1) and rivet the front bracket (D1A-1.21 Item 4). Ensure that the rivet hole centreline is no less than 7mm from the main tube weld (D1A-1.21 Item 1) end as depicted in Figure 2. Ensure that the main tube weld (D1A-1.21 Item 1) holes are positioned upward in line with the locking lever (D1A-1.21 Item 14) pin movement, so that the mechanism engages easily.

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13. Test the rudder pedal adjustment locking mechanism for secure locking by sitting in the glider and applying maximum simultaneous force while wiggling the pedals from side to side.

14. Remove the old M6 bolts and install the supplied M6 bolts to secure the rudder pedal assembly in the aircraft. Note M6 flat locking nut secures the guide tube in place.

MATERIAL

- 1x M6 flat locking nut (Stock code 4.4.05)
- 5x M6 nyloc nut (Stock code 4.4.10)
- 1x M4 nyloc nut (Stock code 4.4.08)
- 1x Main Tube Weld v2 (Part no. 1A-1.21.10.1w#v2)
- 1x locking lever v2 (Part no. 1A-1.21.30.4w#v2)

TOOLS

• Mini grinding tool or equivalent (not supplied)

SUPPLIED DRAWINGS D1A-1.21 issue 4.0

DTA-1.21 ISSUE 4.0

MASS AND BALANCE No effect on mass and balance

NOTES

This Technical Note must be accomplished by approved maintenance personnel.

The original main tube weld and locking lever must be returned to a Jonker Sailplanes agent.

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