

Service Bulletin SB.JS-002

3 July 2012

TITLE

Landing Gear Linkage System Adjustment

APPLICABILITY

MODEL	SERIAL NUMBERS
JS1A	001 to 003, 005, 009
JS1B	004, 006 to 008, 010 ONWARDS

REASON

A report was filed where the landing gear of a JS1 collapsed during landing on a rough field. Further investigation showed that the probable cause was due to play in the landing gear linkage system when it was locked in the down position.

DESCRIPTION

The landing gear linkage system needs to be set to ensure the correct amount of play is available in the system for it to operate as designed.

COMPLIANCE

RECOMMENDED: This Service Bulletin should be accomplished at a scheduled maintenance period or phase inspection not to exceed 100 flight hours.

INSTRUCTIONS

With reference to Figure 1 below the following inspections should be carried out:

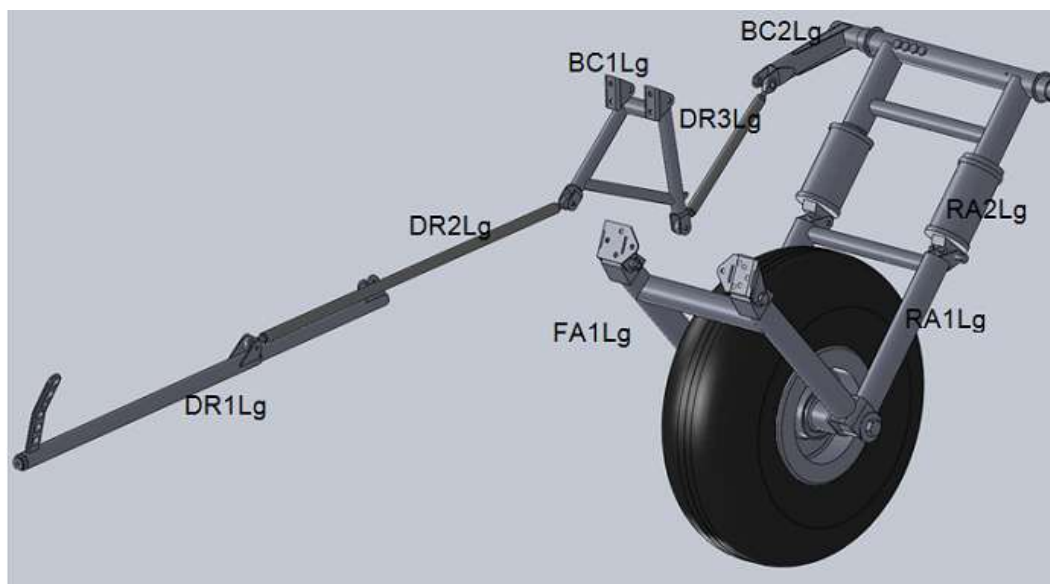


Figure 1 Landing Gear Linkage Elements

Landing gear linkage inspection

1. Place fuselage on a fuselage cradle and ensure it is safe to retract the main wheel.
2. Lock main wheel in down position and ensure the main wheel is off the ground.
3. Put hand on rear landing gear arms (RA1Lg and RA2Lg) and feel if there is any play on the hinge in the rear arm. This is the hinge above the shock element that folds during retraction.
4. Approximately 3mm of play is normal, but the landing gear lock should hold the wheel rear arms in the locked position. The possible play should be countered by the lock in the cockpit and the play should only be due to the elasticity in the system.

In the case of excessive play, the links must be adjusted according to Procedure 1.

Landing gear linkage adjustment: Procedure 1

1. Remove seat pan.
2. Remove the M6 bolt that connects the landing gear handle DR1LG to DR2LG
3. Turn in the rod end on DR2LG, with half turn increments. Install the bolt again and check if the landing gear rear arm play is removed.
4. If all the play can be removed by this adjustment, then the procedure is done.
5. Reinstall the M6 bolt with a new locknut.
6. Reinstall seat pan.

If the play cannot be removed with the adjustment of DR1LG then follow Procedure 2.



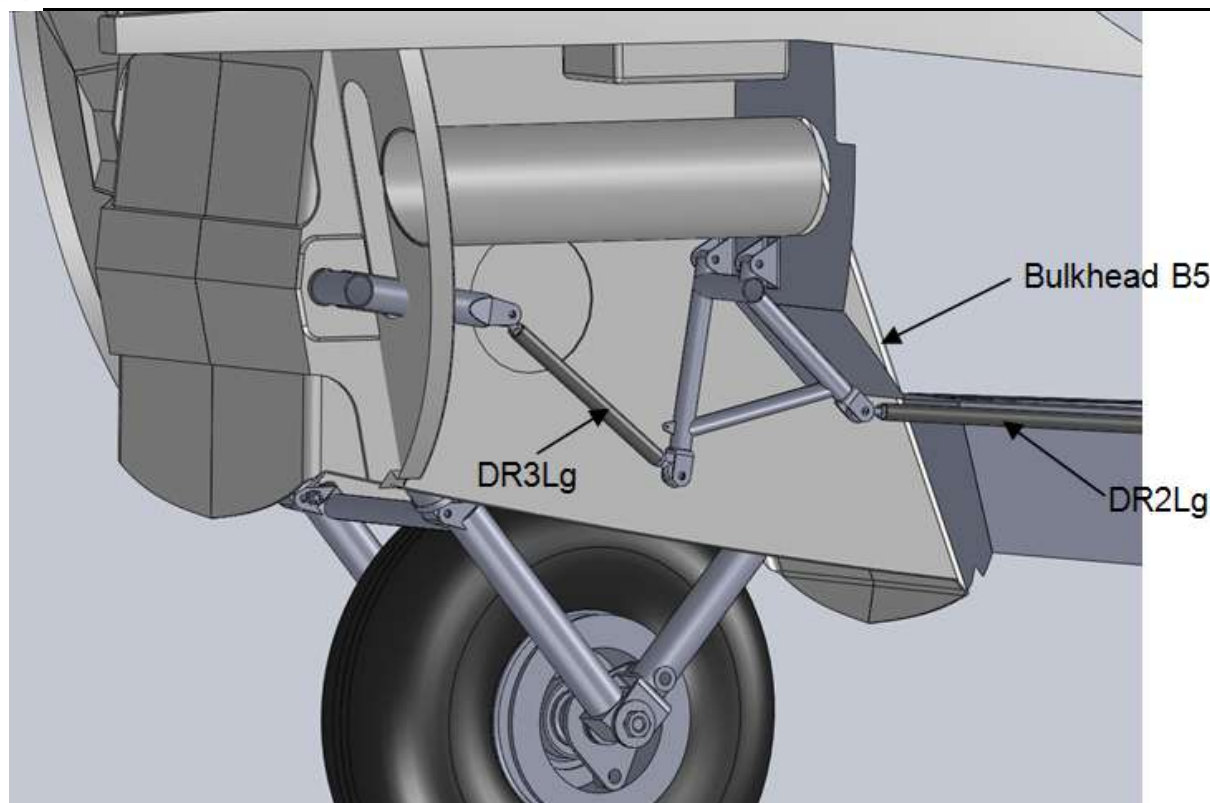


Figure 2 Linkage Elements Behind Bulkhead B5

Landing gear linkage adjustment: Procedure 2

1. Open inspection hole in right-hand wall of wheelbox. If this inspection hole was not made during manufacturing it can be cut now. Refer to the procedure below.
2. Remove the M6 bolt connecting the landing gear handle DR1LG to DR2LG in the cockpit.
3. Put the landing gear handle in the locked down position.
4. Adjust the rod end on DR2LG so that BC1LG is just shy of touching Bulkhead B5.
5. Adjust the rod end on DR3LG inwards so that the play in the landing gear when locked, is removed. DR3LG is accessed through the inspection hole in the wheelbox side.
6. Reinstall all M6 bolts with new nylock nuts.
7. Replace the cover plate on the wheelbox inspection hole.
8. Reinstall seat pan.

Inspection hole procedure

1. Cut a 120mm diameter hole in the side of the wheelbox in the position shown in Figure 3 below.
2. This hole should be closed airtight after use. This can be done with a fibreglass plate of 1mm thickness and 140mm diameter. Bond this plate to the hole using a contact type adhesive so that it can be easily removed again. Secure with three 4mm self tapping screws.

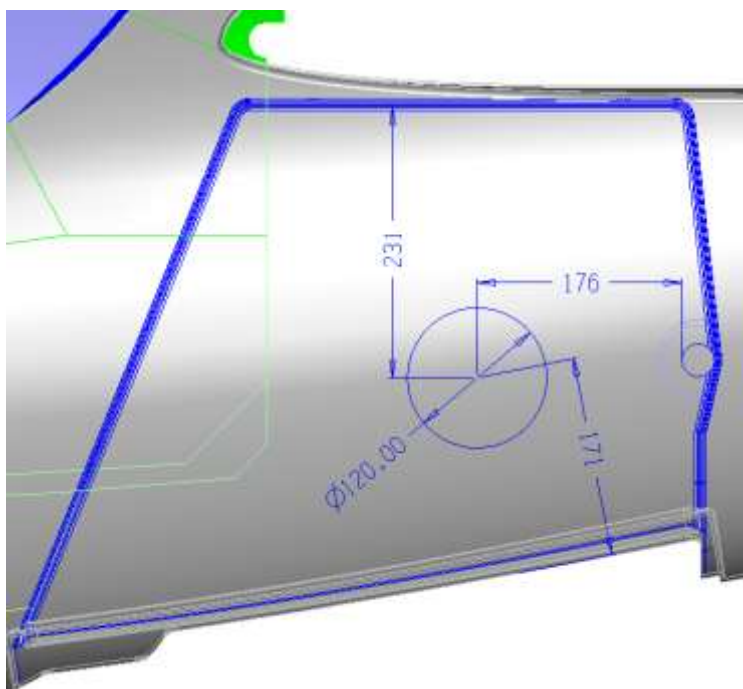


Figure 3. Inspection Hole Location

MATERIAL

No additional material is included with this service bulletin.

MASS AND BALANCE

This service bulletin does not affect the mass and balance of the sailplane.

MANUALS

This Service bulletin does not affect the Flight Manual of the sailplane.

This Service bulletin has been incorporated into the Maintenance Manual of the sailplane.

NOTES

Revision 3 of the Service Bulletin only corrected minor typographical errors.