



**Aircraft Industries**



## MANDATORY BULLETIN

**MB No.: L13/112a**

**Concerns:** All L13A Blaník sailplanes and modified L-13 „BLANÍK“ sailplanes according to the L13/068 or L13/050 bulletins with using of critical parts of L13A Blaník variant.

**Subject:** Determination of compliance of individual sailplane with L13A type design – verification of work range completeness, that have been performed on L13A and L13 sailplanes during a repair or a modification. Sailplane service life and its further operation shall be assessed according to real range of performed modification.

**Reason:** At some sailplanes after their modification (repair) there may be replaced the original L13 wings by L13A wings (SW 13.M21/M22 wings), but it is not guaranteed at the same time there in the fuselage midsection was replaced also wing lower attachment.

The sailplane service life cannot be set to service life of L13A sailplane in case of not replaced wing lower attachment in the fuselage midsection.

**To be carried out at the latest by:** Next flight.

**To be performed by:** Licence holder of aircraft maintenance according to ICAO, Annex 1 with L13/L13A type qualification.

**Costs to be covered by:** Operator.

**Necessary material to be delivered by:** Not required.

**Bulletin becomes effective:** On the date of its issue.

**Total No. of sheets:** 10

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The technical content of this document is approved under the authority of DOA Nr. EASA.21J.119.

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## A. INTRODUCTION

This bulletin has been released as one of remedial measures, necessary for releasing of L13A sailplanes and modified L13 sailplanes into service in accordance with EASA AD No. 2010-0185-E directive requirements. Information bulletins released in history provide in case of L13 sailplanes repairs or for service life extension purposes using of spare parts both in L13 sailplane type design and in L13A sailplane type design too. There exists more L13A sailplanes as result of L13 type modification than the L13A original sailplanes that were manufactured as new ones by the manufacturer.

There exists potential problem of mutual substitution of wings and fuselage installed on L13 and L13A types. There are operated dozens of L13 types with included parts of L13A type design installed within the scope of a repair after an accident or to meet service life extension requests. With regard to teoretical possibility of combined application of critical parts in L13 and L13A type design on one specific sailplane there is necessary to identify real design of used critical parts for further operation.

## B. WORKING PROCEDURE

1. Check the status of individual sailplane structural units and parts according to below mentioned Form of Sailplane Type Determination and then fill „X“ symbol into proper column of the Form (L13 or L13A).
2. Within the scope of check verify serial numbers of sailplane units - placard on the fuselage (frame No. 5) and on wings (root ribs). In case of sailplane modification or repair the numbers on the placards must conform to record that has been performed by an approved maintenance organization into the Log Book.

Serial number XXYYZZ: XX – manuf. mark. (17, 02), from L13A type replaced by year of production  
YY – series number; ZZ – ordinal number in series

Serial number ND YYZZ: YY – year of production; ZZ – ordinal number - valid for spare parts

3. **Send properly filled in and signed Form together with the copy of record involving repair or modification directly to the Type Certificate holder (Aircraft Industries).**
4. Based on the records in the Form following sailplane versions should be evaluated:
  - **L13A** sailplane type - **all** critical parts (tab. 1) and **all** major structural components (tab. 2) are in L13A type design. Service life will be calculated analogous to L13A, operation and operational documentation for L13A type.
  - **L13** sailplane type - **all** critical parts (tab. 1) and **all** major structural components (tab. 2) are in L13 type design. Service life will be calculated analogous to L13 type, operation and operational documentation for L13 type.
  - **L13 Reinforced** sailplane type - performed replacements of **all** critical parts (tab. 1). Service life may be calculated analogous to L13A type, operation and operational documentation for L13 type, critical areas inspections according to L13A type.
  - **L13 Modified** sailplane type - it has not performed replacements of **all** critical parts (tab. 1) and **all** major structural components (tab. 2) in L13A type design. Service life will be calculated analogous to L13 type, operation and operational documentation for L13 type, critical areas inspections according to L13 or L13A types.

## FORM of SAILPLANE TYPE DETERMINATION

Serial No.	Registr. Mark	Total FH	Fuselage S/N	L.H. wing S/N	R.H. wing S/N

**Tab. 1 Critical parts of structure**

Critical area	L13 Sailplane		L13A Sailplane	
	Description of critical area		Description of critical area	
Joining of lower attachment of wing with spar cap and strip (in wing)	<ul style="list-style-type: none"> <li>• 3 rows with 7 duralumin rivets each</li> <li>• construction of 1<sup>st</sup> and 3<sup>rd</sup> rows - rivet in rivet</li> <li>• 2 bolts in wing root</li> <li>• skins joint on the spar cap</li> <li>• see Fig. 1</li> </ul>		<ul style="list-style-type: none"> <li>• 1 row with 9 steel rivets and with 1 bolt</li> <li>• 2 rows with 10 duralumin rivets each</li> <li>• 2 bolts in wing root</li> <li>• skins joint behind the spar cap</li> <li>• see Fig. 2</li> </ul>	
Fork of lower attachment of wing on the frame No. 6 (on the fuselage)	<ul style="list-style-type: none"> <li>• High of fork 27 mm</li> <li>• Thickness of fork eye 6 mm</li> <li>• see Fig. 3</li> </ul>		<ul style="list-style-type: none"> <li>• High of fork 28.5 mm</li> <li>• Thickness of fork eye 6.5 mm</li> <li>• see Fig. 3</li> </ul>	
Lower attachment of wing on frame No. 6 (in fuselage) see Note	<ul style="list-style-type: none"> <li>• Thickness of attachment bottom 1.5 mm</li> <li>• see Fig. 5</li> </ul>		<ul style="list-style-type: none"> <li>• Thickness of attachment bottom 2.5 mm</li> <li>• see Fig. 5</li> </ul>	
Mounting of wing lower attachment behind midsection rib (frame 6a in fuselage)	<ul style="list-style-type: none"> <li>• Rivets</li> <li>• see Fig. 4</li> </ul>		<ul style="list-style-type: none"> <li>• Bolts</li> <li>• see Fig. 4</li> </ul>	

**Tab. 2 Major structural components**

Structural component	L13 Sailplane		L13A Sailplane	
	Description of structural component		Description of structural component	
Canopy jettisoning	<ul style="list-style-type: none"> <li>• Control from front seat only</li> </ul>		<ul style="list-style-type: none"> <li>• Control from both seat</li> </ul>	
Material of control tie rods ends (forks, lugs)	<ul style="list-style-type: none"> <li>• Duralumin</li> <li>• see Fig. 6</li> </ul>		<ul style="list-style-type: none"> <li>• Steel (verify by magnet)</li> <li>• see Fig. 6</li> </ul>	
Material of rudder control pulleys	<ul style="list-style-type: none"> <li>• Duralumin</li> <li>• see Fig. 9</li> </ul>		<ul style="list-style-type: none"> <li>• Hardened textile</li> <li>• see Fig. 9</li> </ul>	
Front towing attachm.	<ul style="list-style-type: none"> <li>• see Fig. 7</li> </ul>		<ul style="list-style-type: none"> <li>• see Fig. 7</li> </ul>	

**Tab. 3 New structural components**

Structural component	L13 Sailplane		L13A Sailplane	
	Description of structural component		Description of structural component	
Variometer on the rear instrument panel	<ul style="list-style-type: none"> <li>• 1 variometer</li> </ul>		<ul style="list-style-type: none"> <li>• 2 variometers</li> </ul>	
Tail skid / wheel	<ul style="list-style-type: none"> <li>• Tail skid</li> </ul>		<ul style="list-style-type: none"> <li>• Tail wheel</li> </ul>	
Control of elevator trim tabs	<ul style="list-style-type: none"> <li>• Steel wire</li> <li>• see Fig. 8</li> </ul>		<ul style="list-style-type: none"> <li>• Cable</li> <li>• see Fig. 8</li> </ul>	
Rear control of towing attachments	<ul style="list-style-type: none"> <li>• Steel wire</li> <li>• see Fig. 10</li> </ul>		<ul style="list-style-type: none"> <li>• Cable</li> <li>• see Fig. 10</li> </ul>	

Date: .....

.....  
 Laborated by (authorized person)  
 (name, sign, stamp)

.....  
 Operator's authorized representative  
 (name, sign, stamp)

Note: Measure the thickness of attachment bottom in more areas (three as minimum) by means of the template (Fig. 5). Use suitable lighting and an endoscope or a mirror.

**C. NECESSARY MATERIAL**

Not required.

**D. ILLUSTRATED PART**

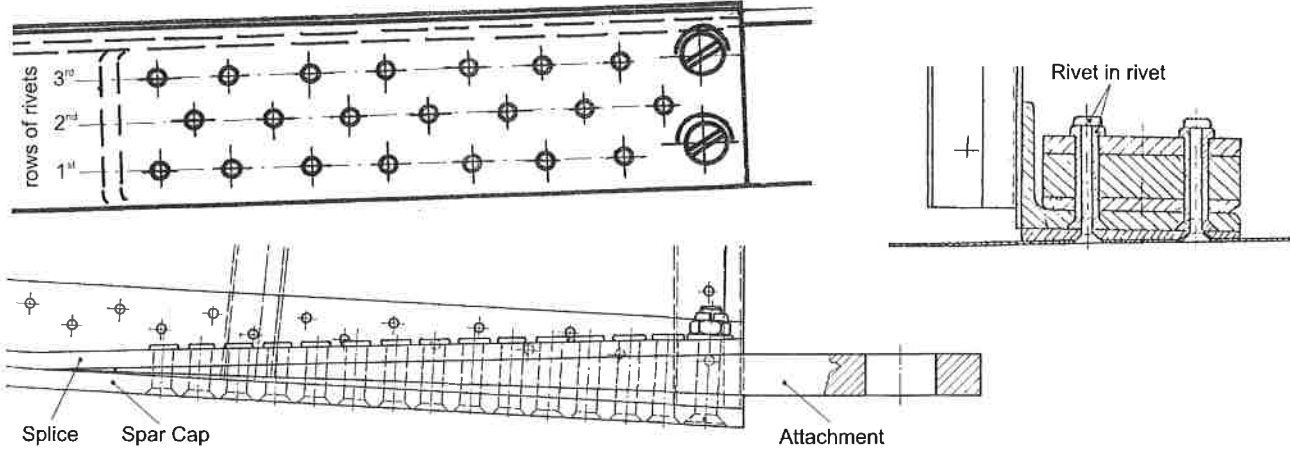


Fig. 1 Joining of lower attachment of wing with spar cap and splice – L13

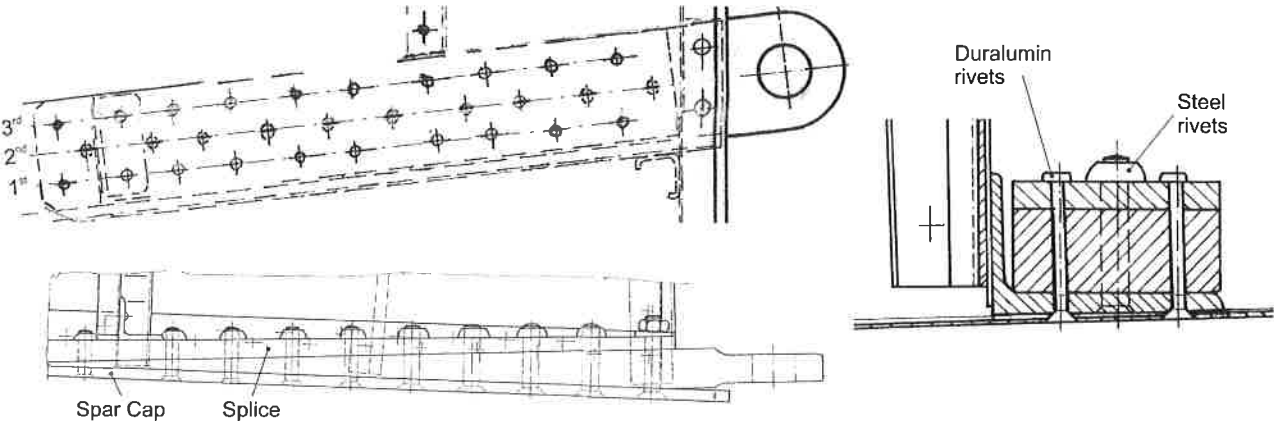


Fig. 2 Joining of lower attachment of wing with spar cap and splice – L13A

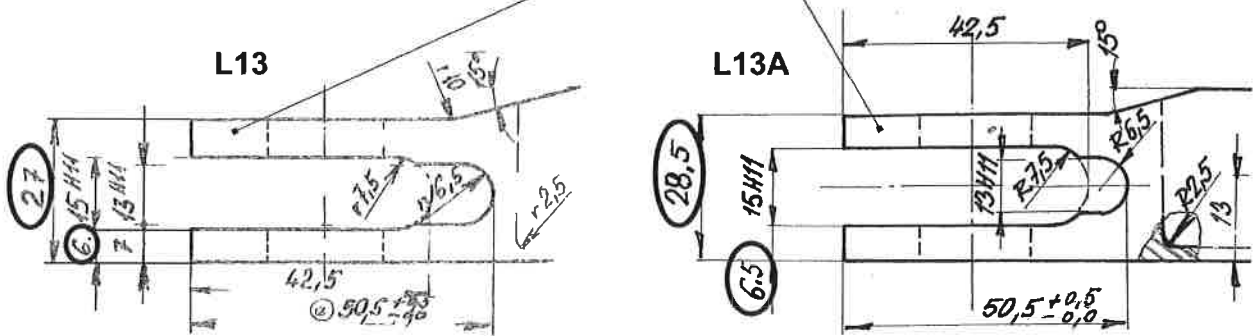
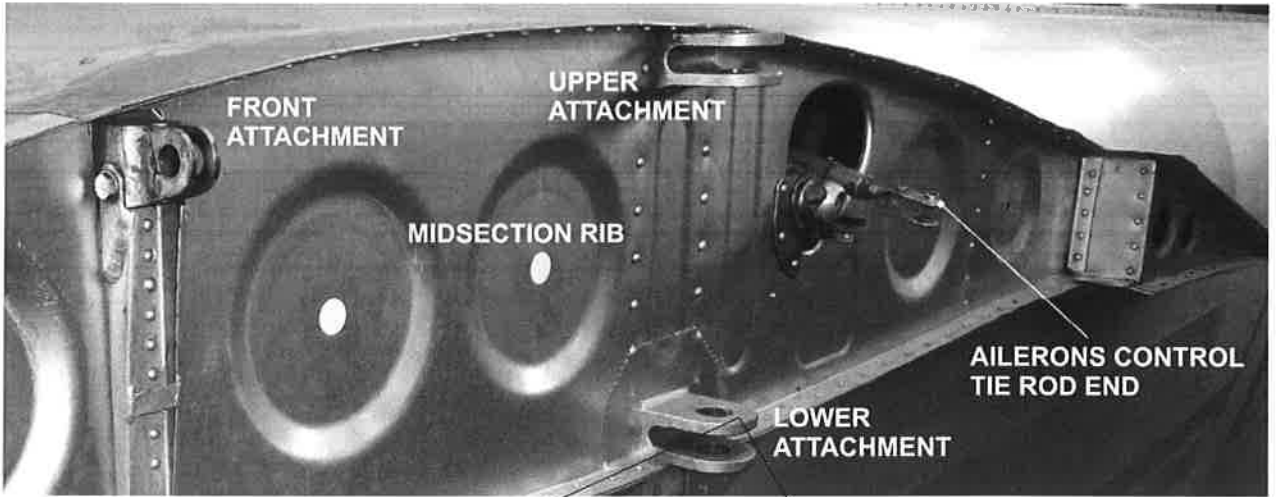


Fig. 3 Fork of lower attachment of wing on the frame No. 6 (on the fuselage)

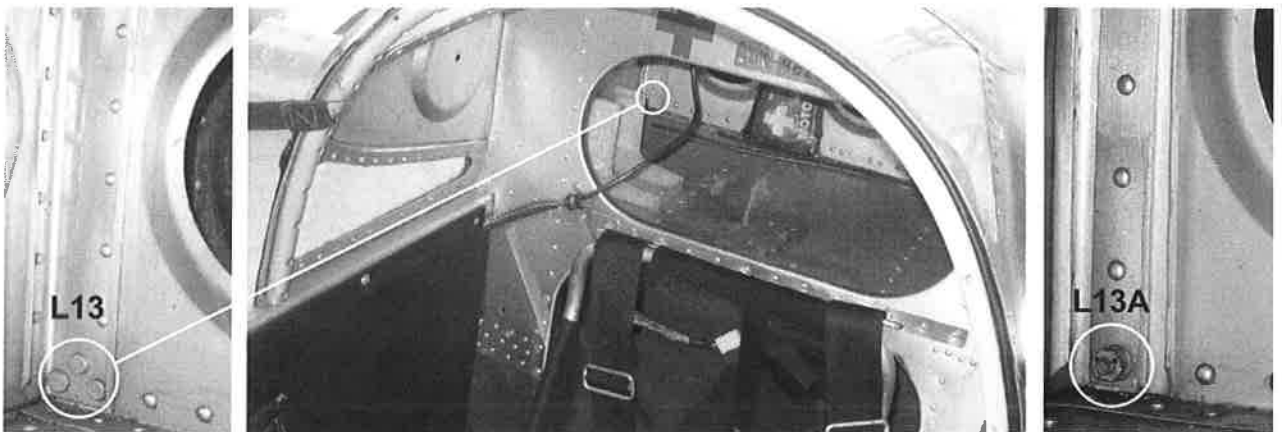


Fig. 4 Mounting of wing lower attachment behind midsection rib (frame 6a in fuselage)

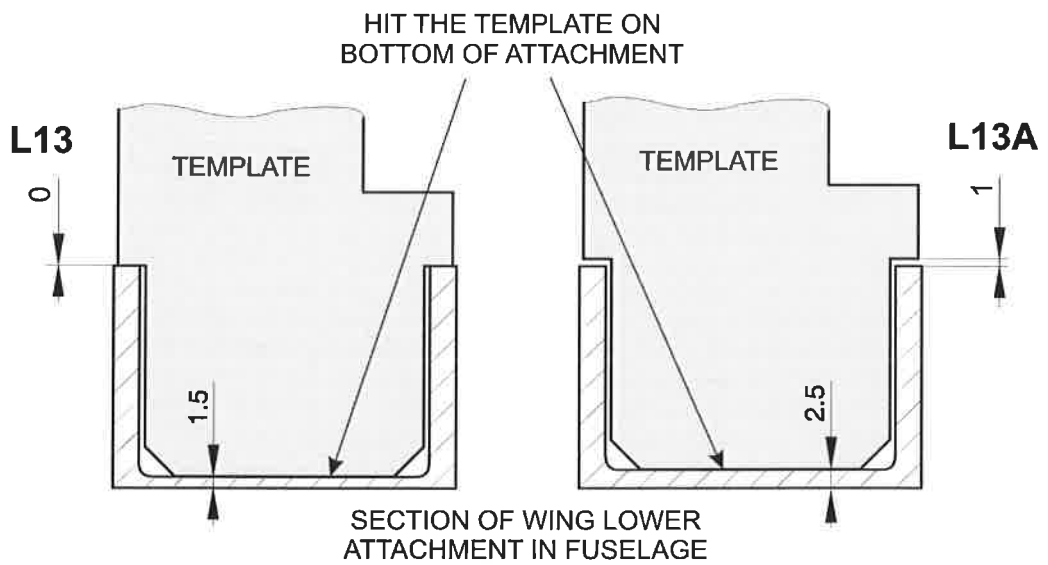
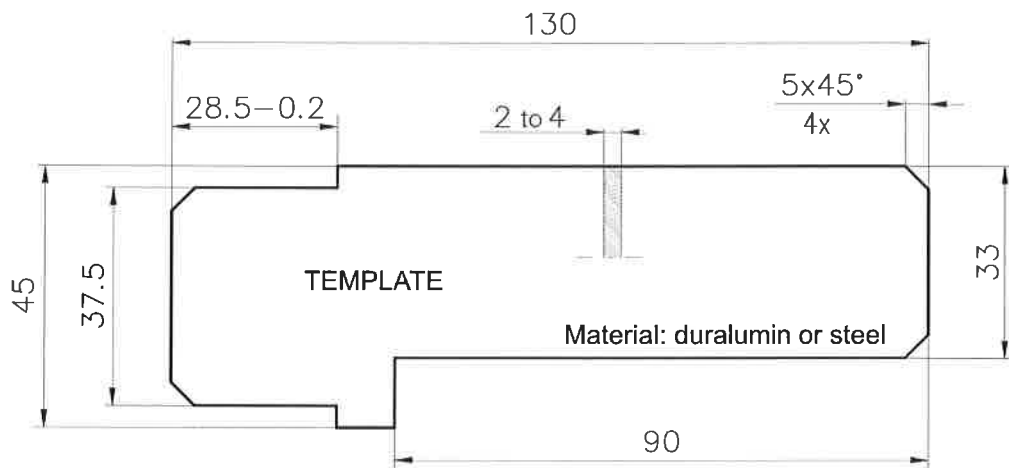
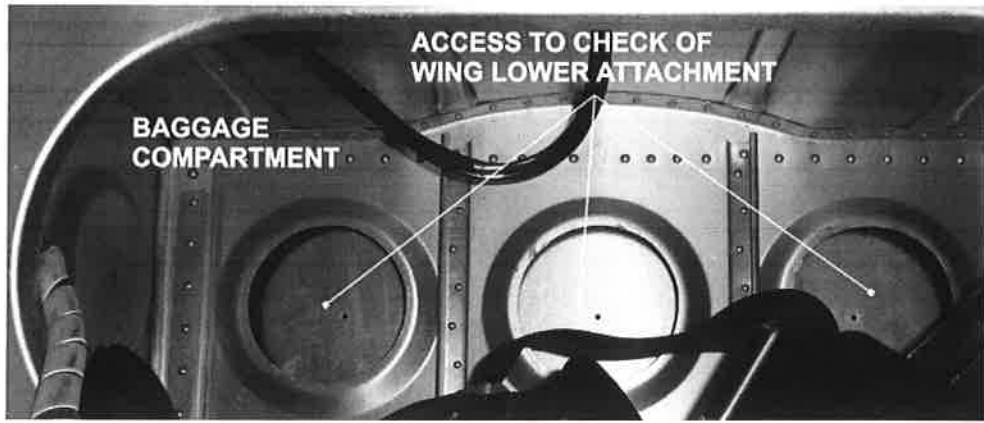
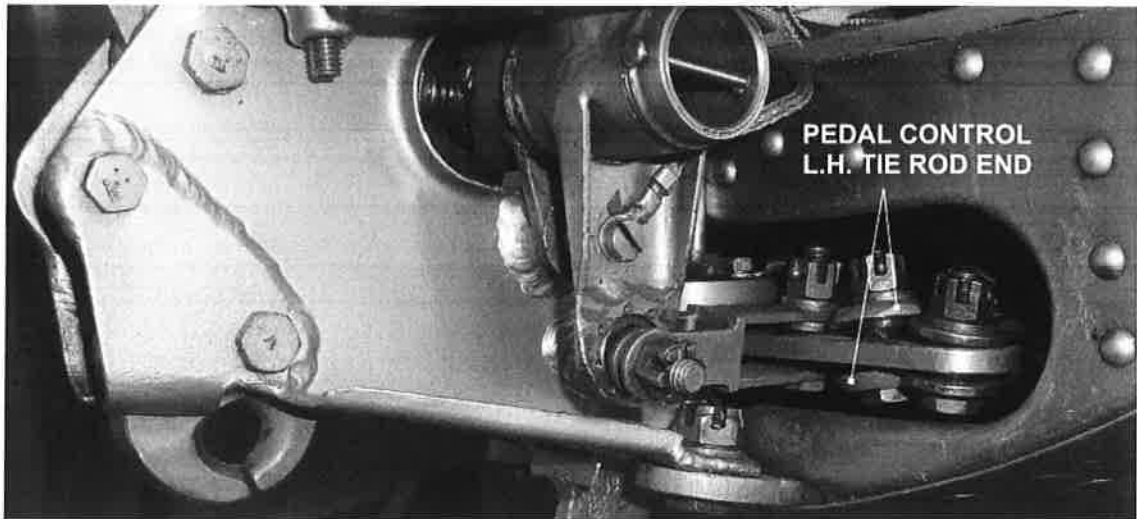
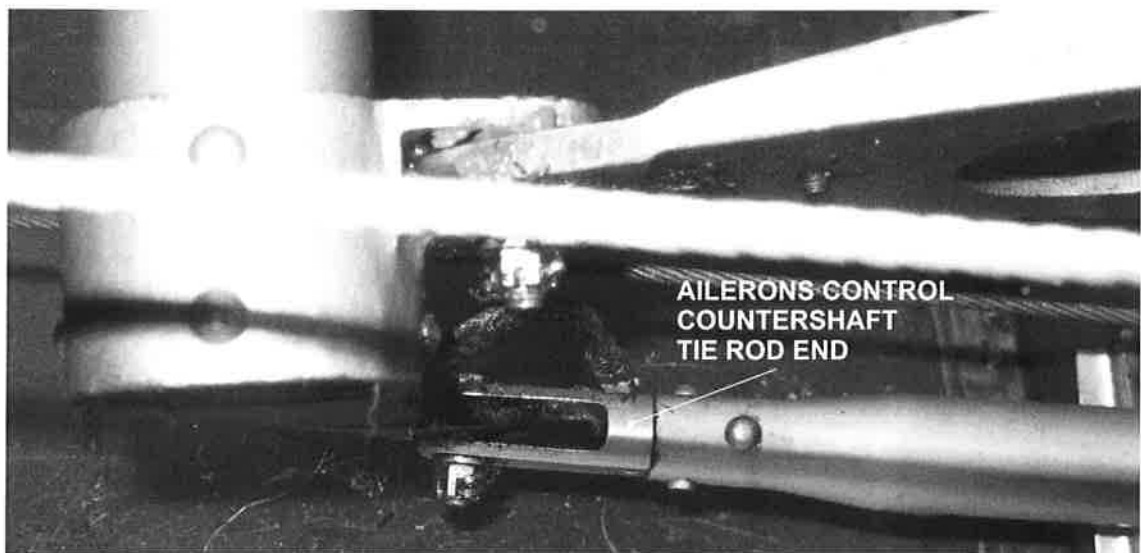


Fig. 5 Measuring of thickness of the wing lower attachment bottom on frame No. 6



Access: Tilt downward the nose cone of fuselage. Check on the L.H. and R.H. side.



Access: Open the lid on the fuselage R.H. side down at the frame No. 6.

Check ends of control tie rods in the wing through the lids on the wing lower side at ribs No. 7, 13 and 19. Check ends of ailerons control tie rods in the midsection (see Fig. 3, on the L.H. and R.H side). Check ends of tie rod interconnecting control columns and ends of elevator drive tie rod (through the lid on the fuselage L.H. side below the fin and the tilting tail cone).

Fig. 6 Control tie rods ends

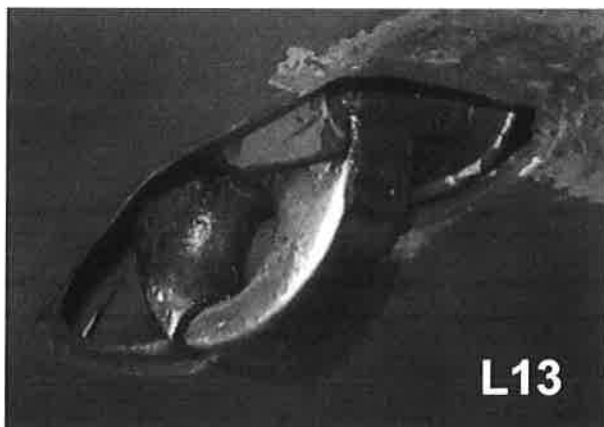
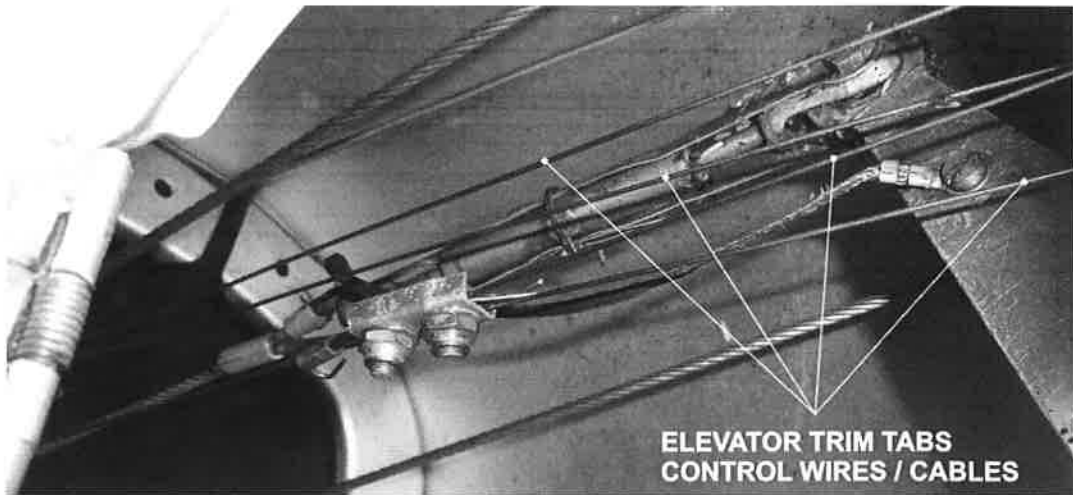
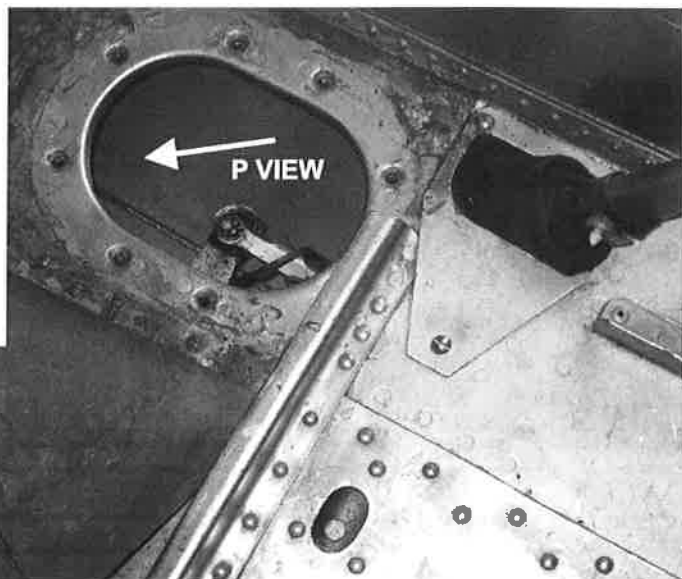
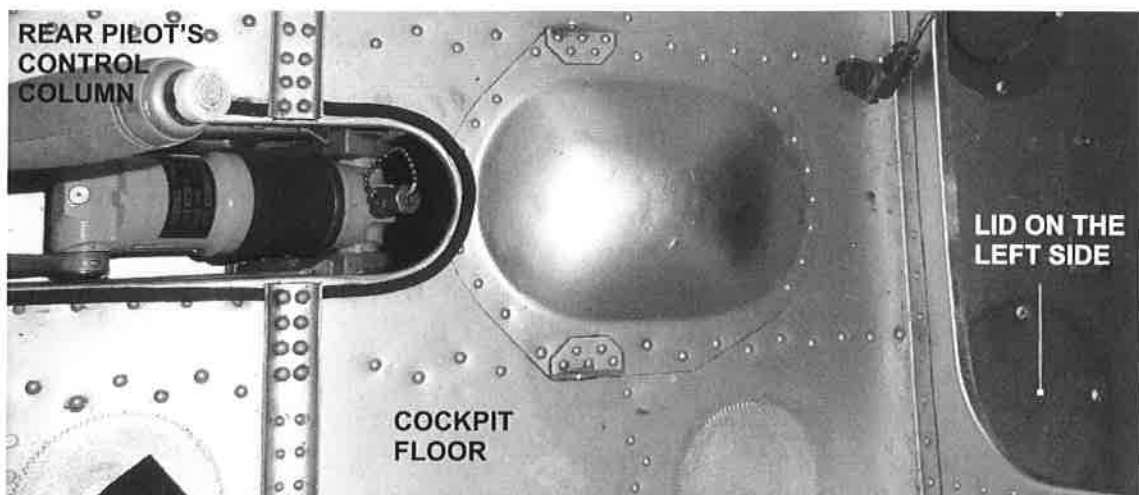


Fig. 7 Front towing attachment



Access: Open the lid on the fuselage L.H. side below the fin.

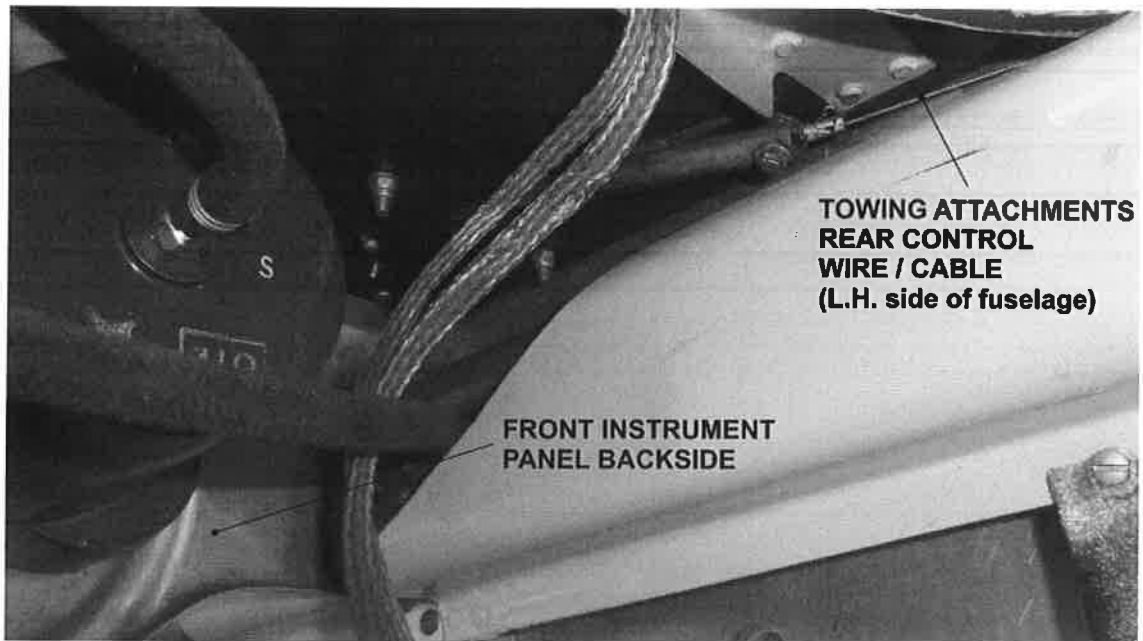
Fig. 8 Elevator trim tabs control wires / cables



Check one pulley under lid according to the upper figure and two pulleys under lids according to the lower figure (L.H. and R.H. side).

Fig. 9 Rudder control pulleys





Access: Tilt downward the nose cone.

Fig. 10 Towing attachments rear control wire / cable

#### **E. USED DOCUMENTATION**

Not required.

#### **F. MAN-HOURS**

Supposed man-hours: 2 m-hrs

#### **G. TOOLS REQUIRED**

- Slide gauge 150 / 0.02 mm.
- Template (Fig. 5)
- Endoscope / mirror

#### **H. SPARE PARTS IN OPERATION**

Not affected.

#### **I. WEIGHT AND BALANCE**

Not affected.

## J. RECORD IN AIRFRAME LOGBOOK AFTER THE BULLETIN IMPLEMENTATION

Check of sailplane structure units and parts has been performed according to the MB L13/112a.

Found status:

- The sailplane is **L13A** type.
- The sailplane is **L13** type.
- The sailplane is **L13 Reinforced** type.
- The sailplane is **L13 Modified** type.

Date: .....

Carried out by: .....  
(legible signature of verification engineer)