



Aircraft Industries



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Aircraft Industries, a.s. / Na Záhonech 1177 / Kunovice 686 04 / Czech Republic

# SERVICE BULLETIN

SB No. **L-410/059b**

Aeroplane Type: **L-410**

Revision No. **IR**

Date of Issue: **May 4, 2023**

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

**Classification:** Recommended

**Subject:** Installation of a washer under bolt head of the elevator hinges.

**Supersedure:** N/A

## 1. PLANNING INFORMATION

### A. APPLICABILITY

L-410 UVP – Turbolet, L 410 UVP-LW, L-410 UVP-E, L 410 UVP-E-LW, L 410 UVP-E9,  
L 410 UVP-E20, L-420 aeroplanes.

### B. CONCURRENT REQUIREMENTS

None.

### C. REASON

A lug of the elevator hinge has been abraded from the bolt head.

### D. COMPLIANCE TIME

It is recommended to be done during the next removal of the elevator.

### E. MANPOWER

Supposed Man-hours: 8 M-hours (without repair of hinges)

### F. MATERIAL

Will be delivered by the aeroplane manufacturer Aircraft Industries, a.s., 686 04 Kunovice,  
Czech Republic based on order.

**G. NEW EQUIPMENT**

None.

**H. SPECIAL TOOLS**

None.

**I. EXPENSES**

To be covered by the operator.

**J. WEIGHT AND BALANCE**

Influence of the installation on an empty aeroplane weight and moment is negligible.

**K. REFERENCE DOCUMENTS**

**1. Drawings**

B530 200N sheet 2, index AA	Tail unit
B532 360N	Repair of a hinge

**2. Maintenance Manual L 410 UVP-E, E9, E20 or L 410 UVP-E-LW, chap.:**

020.12.00	020.20.00	020.30.00	027.31.00	053.50.00	055.20.00
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**3. Maintenance Manual L 410 UVP or L 410 UVP-LW, chap.:**

20.12.00	20.20.00	20.30.00	27.31.00	53.50.00	55.20.00
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**L. AFFECTED DOCUMENTS**

AFM	not affected	
MS	not affected	
MM	L 410 UVP-E, E9, E20	Supplement No. 432
	L 410 UVP	Supplement No. 49
	L 410 FG	Supplement for S/N of the aeroplane
	L-420	Supplement No. 54
WM	not affected	

## 2. IMPLEMENTATION INFORMATION

### A. PREPARATORY WORK

- Push or pull the steering wheel as necessary and fix the control column.
- If better access is needed:
  - Remove the rear tail unit-to-fuselage fillets pos. 7, 8, 11, 12 – see the MM, chap. 053.50.00, Fig. 2.
  - Disconnect the LH and RH elevators from the pull rods pos. 3 – see the MM, chap. 027.31.00, Fig. 4, Detail V. Keep original connecting material and dust catchers for reassembly.
- If the stabilizer hinges need to be repaired:  
Remove the elevator according to the MM, chap. 055.20.00, page 401.

### B. CHECK OR INSPECTION

Check the condition of each hinge fork after a joint has been disassembled according to the point 2.C. of this bulletin.

- If the hinge forks are not damaged, install back the original connecting material and new washers according to the point 2.E. of this bulletin.
- If the surface is damaged (abraded paint, minor abrasions) with material abrasion up to 0.2 mm, repair the hinge fork according to the point 2.D.1. of this bulletin.
- If the surface is damaged with material abrasion from 0.2 mm to 0.5 mm, repair the hinge fork according to the point 2.D.2. of this bulletin.
- If the surface is damaged with material abrasion of more than 0.5 mm, follow the point 2.D.3. of this bulletin.

### C. DISASSEMBLY

- Remove the split pin pos. 41, unscrew nut pos. 33 and remove washer pos. 37 and bolt pos. 27, Dwg No. B530 200N sheet 2, Detail I2. Keep the dust catchers in the hinge.

#### NOTE

Disassemble and assemble all hinge joints pos. 2, 3, 5 (see the MM, chap. 055.20.00, Fig. 401) one by one if no hinge repair is necessary.

## D. REPAIR

### 1. Damaged surface with material abrasion up to 0.2 mm

- Clean the damaged surface to metallic lustre with smooth transitions or possibly with R3 radius. Prevent further loss of material. The cleaned area must allow for the installation of a washer under the bolt head.
- Treat the cleaned surface with Bonderite M-CR 1200S Aero according to the MM, chap. 020.12.00 and coat with primer and top enamel according to chap. 020.20.00. Use material pos. 1 or 2 of point 3.B. of this bulletin.

### 2. Damaged surface with material abrasion from 0.2 mm to 0.5 mm

- Clean the damaged surface to metallic lustre with smooth transitions or possibly with R3 radius. Prevent further loss of material. The cleaned area must allow for the installation of a washer under the bolt head.
- Check the surface by Penetrant Fluorescent Inspection method according to the MM, chap. 020.30.00, point 1.E.(3) in order to exclude possible cracks. If any crack has been found, contact the aeroplane manufacturer Aircraft Industries, a.s. to determine further procedure.
- If no crack has been found, treat the cleaned surface with Bonderite M-CR 1200S Aero according to the MM, chap. 020.12.00 and coat with primer and top enamel according to chap. 020.20.00. Use material pos. 1 or 2 of point 3.B. of this bulletin.

### 3. Damaged surface with material abrasion of more than 0.5 mm

- Clean the damaged surface to metallic lustre with smooth transitions or possibly with R3 radius. Prevent further loss of material. The cleaned area must allow for the installation of a washer under the bolt head.
- Check the surface by Penetrant Fluorescent Inspection method according to the MM, chap. 020.30.00, point 1.E.(3) in order to exclude possible cracks.
- Contact the aeroplane manufacturer Aircraft Industries, a.s. to determine further procedure. Send a report, which must include a detailed finding with measured and plotted material loss and possible crack/s.

## E. ASSEMBLY

- Put a new washer pos. 1 on the original bolt and insert it into the hinge through original dust catchers. Put a new washer pos. 1 and screw the original nut on according to the Dwg No. B532 360N, Detail I. Secure the nut with a new split pin. Use material pos. 1, 2 of point 3.A. of this bulletin.

### NOTE

Tighten the nut by hand and secure with a split pin. If the nut cannot be secured, it can be tightened with a wrench to the closest overlap of the slot with the split pin hole (no more than one-sixth of the circumference).

## F. TESTS

### 1. Ground Tests

- Check free motion of the elevator and elevator trim tab controls.

### 2. Flight Tests

None.

## G. COMPLETION WORK

- Clean mounting area from material scraps and dirties.
- Connect the LH and RH elevators to the pull rods pos. 3 – see the MM, chap. 027.31.00, Fig. 4, Detail V (if they have been disconnected) and install the rear tail unit-to-fuselage fillets pos. 7, 8, 11, 12 – see the MM, chap. 053.50.00, Fig. 2. Use original connecting material, dust catchers and new split pins pos. 3 of point 3.A. of this bulletin.
- Install the elevator according to the MM, chap. 055.20.00, page 402 **and point 2.E. of this bulletin** (if it has been removed). Use new split pins and tab washers pos. 3, 4 of point 3.A. of this bulletin.
- Check all joints and their locking.
- Repair damaged paintings and renew surface protection of connecting material with paint according to the MM, chap. 020.20.00.
- Insert the Supplement into the respective aeroplane manual.

## 3. BILL OF MATERIAL

### A. MATERIAL DELIVERED BY THE AEROPLANE MANUFACTURER

Pos.	Nomenclature	Name	Pcs/Arpln
1	35611817	8x1 Washer, ONL 3271	15
2	36106458	2x18 Split pin, DIN 94	8
3	36106434	1.6x14 Split pin, DIN 94	8
4	35756012	12.3 Tab washer, ONL 3288.1	3

### B. MATERIAL SUBJECT TO SPECIAL CONDITIONS DURING TRANSPORT

Pos.	Nomenclature	Name	Qty/Arpln
1	82055550	Bonderite M-CR 1200S Aero or	50 g
2	82055560	Bonderite M-CR 1132 Pen	1

## 4. RECORD IN THE AEROPLANE LOGBOOK

Record implementation of this L-410/059b Service Bulletin.

# Detail I<sub>2</sub>

M 1:1

Z listu 1 uz lustra  
Pootočeno poverynuto

způsob spojení výškovky se stabilizátorem typický  
pro všechny závěsy stabilizátoru  
Способ соединения руля высоты и стабилизатора типичный для всех  
узлов навески стабилизатора. 28

27

33

37

41

21

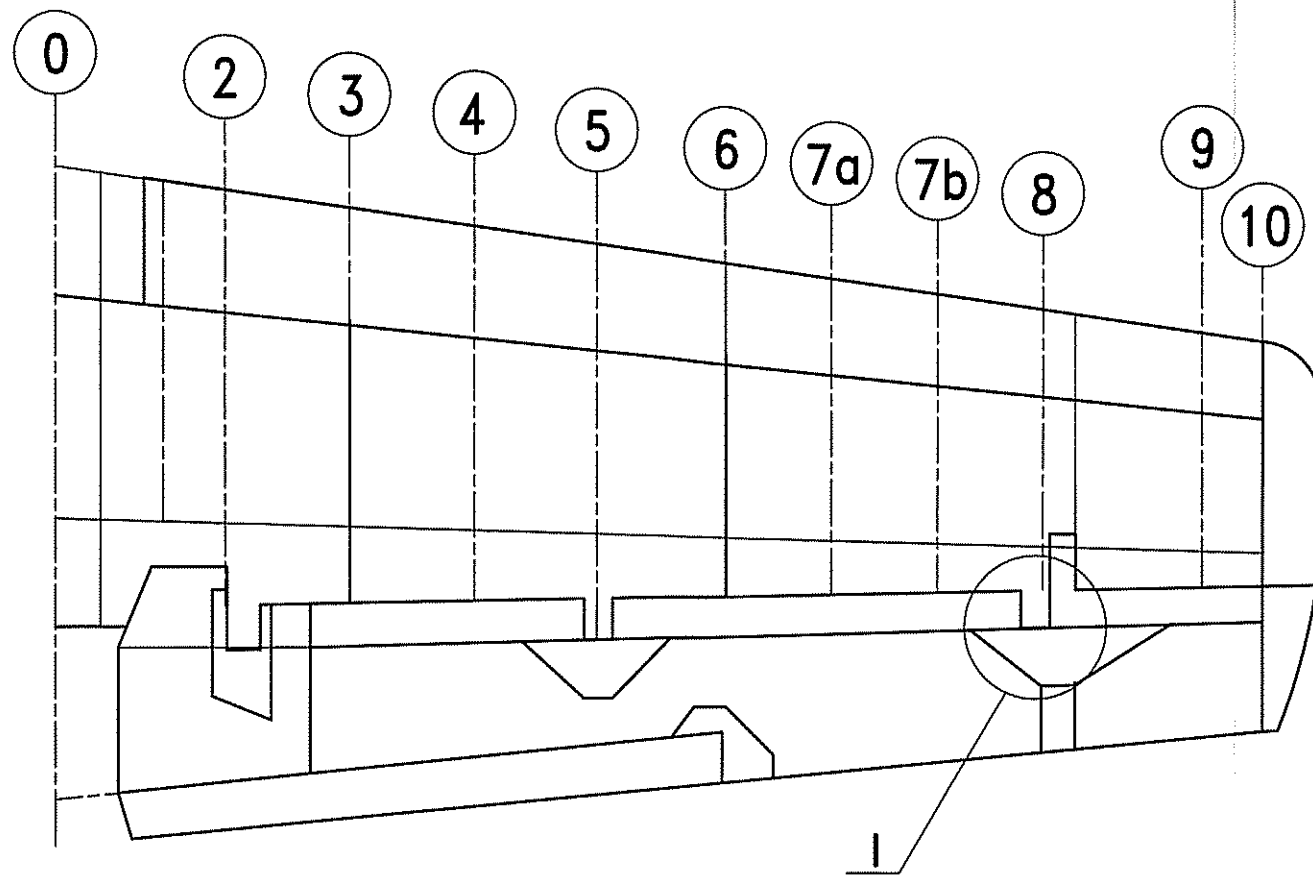


Только для узла навески  
стабилизатора н.ч. черт. 1  
45 Jan u závěsů stab.  
č.v. B 032 540<sup>P</sup>

22 Jan u závěsů stab.  
3104 a L410. 3103  
č.v. L410. 3103 a L410. 3105

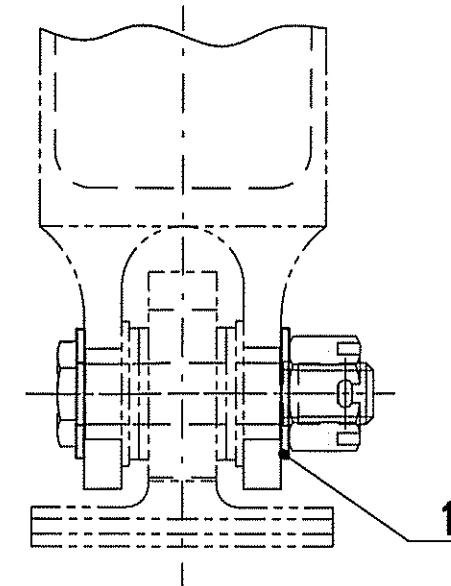
Только для узла навески  
стабилизатора н.ч. черт. Л410. 3104  
и Л410. 3103  
и Л410. 3106  
и Л410. 3105

Jan u závěsů stab. B 032 540<sup>P</sup>  
Только для узла навески стаб. B 032 540<sup>P</sup>



**DET. I**

M 1:1



**ORIGINAL  
ČERVENĚ**

L410UVP-E20  
REP-142-L410

4. POVRCHOVOU OCHRANU ZÁVĚSU OBNOVIT DLE LeN 54903 - 23c,57d, VRCHNÍ NÁSTRÍK DLE NÁSTRÍKU LETOUNU
3. ZÁVĚS ZAČISTIT PRO INSTALACI PODLOŽKY S PLYNULÝM VÝBĚHEM MIN. R3, PŘI ZAČISTĚNÍ NESMÍ DOJÍT K DALŠÍMU ZESLABENÍ ZÁVĚSU
2. PODLOŽKY POZ. 1 INSTALOVAT I NA OSTATNÍ ZÁVĚSY STABILIZÁTORU
1. SYSTÉM VOP B000312X

		Promítání:							
		Délkové rozměry: mm							
		Nesol. rozměry: L410 - P002							
Materiál: --		--							
		ZKB061799				9.3.23	HORKA		
Položvar: --		Index	Změna	Od	Do	Datum	Podpis		
Úprava povrchu: --		2D CAD: B520360N		3D CAD: ---		Typ: L 410	ATA: 55		
	Datum	Podpis		Měřítka:		Název:			
Navrh:	8.3.23	HORKA		NENÍ		OPRAVA ZAVESU			
Kontroloval:	9.3.23	NEDOMA							
Stavka:	13.03.2023	PROFOUS							
Únava:	--								
Norm. ref.:	9.7.2023	KRMICEK							
Schválil:	9.7.23	SACHA							
				Čistá hmot:	Číslo výkresu:		Index:		
				--	B532 360N		-		
				Kategorie:			List: 1		
				S					