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# IS-28B2/E0-25 MANDATORY SERVICE BULLETIN



APPROVED BY : ROMANIAN CIVIL AIRWORTHINESS AUTHORITY

with no. 491/16.02.1999

PRODUCT : IS-28B2 GLIDER

SUBJECT : CHECK OF AIR BRAKE CONTROL HANDLES

**COMPLIANCE**: MODIFICATION RECORD CARD No. 28B2.07.1274



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# 1. PLANNING INFORMATION

#### 1.A. APPLICABILITY

This Service Bulletin can be applied to the IS-28B2 gliders with a serial number up to 364. Beginning with serial no. 365 the parts concerned do not require any inspection.

#### 1.B. REASON

Failure of an air brake control handle at the welding seam.

#### 1.C. DESCRIPTION

Perform immediately an inspection of the two air brake control handles (seat 1 and 2). At the 100h inspection, perform also a check of the two air brake control handles.

### 1.D. ACCOMPLISHMENT

The application of this Service Bulletin is the user's liability.

#### 1.E. MATERIAL-COST AND AVAILABILITY

The application costs are borne by the user.

#### 1.F. TOOLING

Magnifier 1x10 or stronger and penetrant dye.

## 1.G. WEIGHT AND BALANCE

Not affected.

#### 1.H. REFERENCES

Modification Record Card no. 28B2.07.1274.

#### 1.I. DOCUMENTS AFFECTED

Amendment no. 23 to the Flight and Maintenance Manual, 2<sup>nd</sup> issue; Amendment no. 37 to the Flight and Maintenance Manual, 3rd issue;



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# 2. ACCOMPLISHMENT INDICATIONS

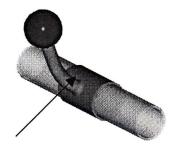
## 2.A. WORK PREPARATION

To apply this Service Bulletin, position the glider in a well illuminated place or use a portable lamp.

Open the cockpit and unlock the air brake control (by passing over the dead point).

#### 2.B. APPLICATION

- > Dust the two air brake control handles; if the result is not satisfactory, clean with a soft cloth.
- > Inspect the welding and the adjacent area.



If any suspicions exist, use a penetrant dye. If a crack is detected to one of the two control handles, stop the glider from flight and order new handles to IAR – Braşov.

WELDING

#### 2.C. USING INSTRUCTIONS

Normal servicing, according to the Flight and Maintenance Manual.

# 3. MATERIAL INFORMATION

#### 3.A. MATERIAL LIST

None.

#### 3.B. MODIFICATION LIST

None.

#### 3.C. SUPPLY INDICATIONS

None.



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# 4. IDENTIFICATION

The application of this Service Bulletin shall be recorded in the glider log card. The Service Bulletin is accompanied by:

- Amendment no. 23 to the Flight and Maintenance Manual, 2<sup>nd</sup> issue; Amendment no. 37 to the Flight and Maintenance Manual, 3<sup>rd</sup> issue;

# 5. APPENDICES

- 1. Amendment no. 23 to the Flight and Maintenance Manual, 2<sup>nd</sup> issue;
- 2. Amendment no. 37 to the Flight and Maintenance Manual, 3rd issue

Part	Amended	Revision	Date		Signature
no.	page	nature	of	of	8
			approval	insertion	
28	0.3.P;6.39.A;	Text matching to the	07.03.91		
		relevant glider equipment			
		(Hungary).			
29	0.3.S;0.3.1;2.3.B;	Completion of weight and	24.02.92		
	6.45.B;6.46.C;6.46.1	balance calculation.		100	
ļ	6.47.1;6.47.2;6.48.B;				
30	0.2.3;0.3.T;0.3.1;	Introduction of travel	15.05.92		
	6.26.1;6.27.1;6.28.1;	stops for elevator,ailerons	-		
		and rudder beginning with			
	0.011.00.1	the glider S/N360.			
31	0.3.U;6.9.1.A;6.9.2;	Increase of the number of	21.04.93		
		landings until the first			
		overhaul and between			
		overhauls for the gliders			
		owned by the Romanian Aeroclub.			
32	0.3.V;6.23.A;4.7.A;	Additional indications	24.02.04		
32	0.3.V,0.23.A,4.7.A,	concerning the landing	24.02.94		
		gear mounting and			
		approach procedure			
		completion.		-	
33	0.3.X;15.1;3.1.A;	Compass location	26.07.94		
		(alternative). Improved	20.07.34		
		cockpit jettisoning.			
34	o.3.y;6.15.1.A;6.15.2	Maintenance completion	06.03.95		
	The second secon	for cockpit canopy	00.03.55		
		jettisoning system.			
35	0.3.1.A;6.46.D;	Weighing specifications	20.04.95		
		beginning with the glider			
		S/N 360.	63		
36	6.9.E;6.9.1.B;6.9.2.A;	Gliders servicing after	05.12.97		
	6.10.D;6.14.E;6.15.D	reaching 20 years from			
	APPENDIX	the manufacturing date.	_		
	1/10.1997				
	APPENDIX				
	2/10.1997				
37	0.3.Z;0.3.1.B;6.31.B;	Check of air brake control	.11.98		
L	6.32.A;	handles.	0		

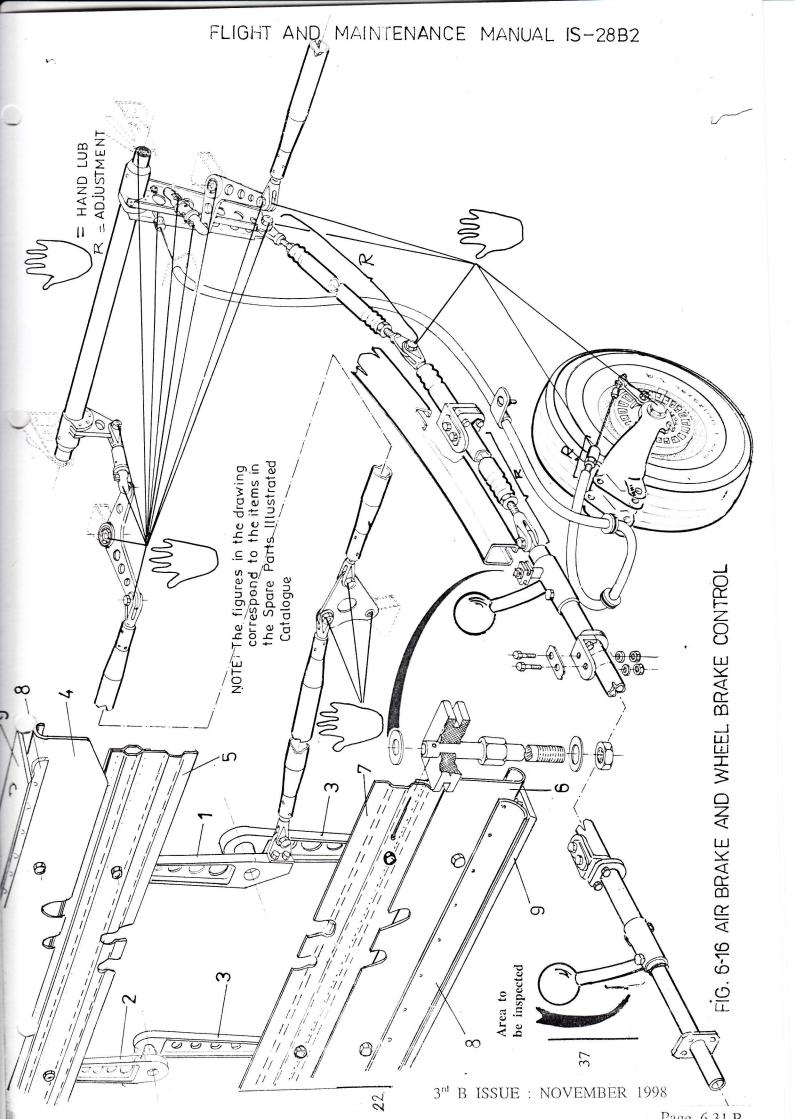
## VALID PAGES LIST

PAGE	ISSUE		
01-0.2.1	3 <sup>rd</sup> ISSUE: APRIL 1978		
0.2.2	3 <sup>rd</sup> ISSUE: MARCH 1988		
0.2.3	3 <sup>rd</sup> ISSUE: OCTOBER 1997		
0.3.Z	3 <sup>rd</sup> Z ISSUE: NOVEMBER 1998		
0.3.1.B	3 <sup>rd</sup> B ISSUE: NOVEMBER 1998		
1.0.B	3 <sup>rd</sup> B ISSUE: MARCH 1988		
1.1.A	3 <sup>rd</sup> A ISSUE: MARCH 1988		
1.2.A	3 <sup>rd</sup> A ISSUE: MARCH 1988		
1.3 - 1.4	3 <sup>rd</sup> ISSUE: APRIL 1978		
1.5.B	3 <sup>rd</sup> B ISSUE: JULY 1981		
1.5.1	3 <sup>rd</sup> ISSUE: JULY 1994		
1.6 - 1.8	3 <sup>rd</sup> ISSUE: APRIL 1978		
2.0.B	3 <sup>rd</sup> B ISSUE: MARCH 1988		
2.0.B 2.1.A	3rd A ISSUE: MAY 1979		
2.1.A	3rd ISSUE: APRIL 1978		
2.2 2.3.B	3 <sup>rd</sup> B ISSUE: MAY 1992		
2.3.B 2.4.A	3rd A ISSUE: OCTOBER 1980		
2.4.A 2.5.B	3 <sup>rd</sup> B ISSUE: NOVEMBER 1979		
1	3rd ISSUE: APRIL 1978		
2.6	3rd A ISSUE: NOVEMBER1979		
2.7.A	3rd A ISSUE: NOVEMBER 1979 3rd A ISSUE: MARCH 1988		
2.8.A	3rd ISSUE: MARCH 1988		
2.9 - 2.10	3rd A ISSUE: DECEMBER 1978		
2.11.A	THE RESIDENCE OF THE PROPERTY		
3.0	3rd ISSUE: APRIL 1978		
3.1.A	3 <sup>rd</sup> A ISSUE: JULY 1994		
4.0 - 4.6	3 <sup>rd</sup> ISSUE: APRIL 1978		
4.7.A	3 <sup>rd</sup> AISSUE: FEBRUARY 1994		
4.8 - 4.11	3 <sup>rd</sup> ISSUE: APRILIE 1978		
4.12.A	3 <sup>rd</sup> A ISSUE: NOVEMBER 1982		
5.0 - 5.4	3rd ISSUE: APRIL 1978		
5.5.A	3 <sup>rd</sup> A ISSUE: MAY 1979		
6./01 - 6./02	3 <sup>rd</sup> ISSUE: APRIL 1978		
6./03.B	3rd B ISSUE: APRIL 1988		
6/04	3 <sup>rd</sup> ISSUE: APRIL 1978		
6.1 - 6.4	3 <sup>rd</sup> ISSUE: APRIL 1978		
6.4.1.A	3 <sup>rd</sup> A ISSUE: DECEMBER 1978		
6.5.A	3 <sup>rd</sup> A ISSUE: NOVEMBER 1982		
6.6	3 <sup>rd</sup> ISSUE: APRIL 1978		
6.6.1.A	3 <sup>rd</sup> A ISSUE: NOVEMBER1978		
6.7.A	3 <sup>rd</sup> A ISSUE: APRIL 1989		
6.8	3 <sup>rd</sup> ISSUE: APRIL 1978		
6.9.E	3 <sup>rd</sup> E ISSUE: MARCH 1998		
6.9.1.B	3 <sup>rd</sup> B ISSUE: MARCH 1998		
6.9.2.A	3 <sup>rd</sup> A ISSUE: MARCH 1998		
6.10.D	3 <sup>rd</sup> D ISSUE: MARCH 1998		
6.11 - 6.13	3 <sup>rd</sup> ISSUE: APRIL 1978		
6.14.E	3 <sup>rd</sup> E ISSUE: MARCH 1998		
6.15.D	3 <sup>rd</sup> D ISSUE: MARCH 1998		
6.15.1.A	3 <sup>rd</sup> A ISSUE: NOVEMBER 1994		
6.15.2	3 <sup>rd</sup> ISSUE: NOVEMBER 1994		
6.16 - 6.22	3 <sup>rd</sup> ISSUE: APRIL 1978		
6.23.A	3 <sup>rd</sup> A ISSUE: DECEMBER 1993		
6.24	3 <sup>rd</sup> ISSUE: APRIL 1978		
6.25.B	3 <sup>rd</sup> B ISSUE: APRIL 1989		
6.26 <i>.</i> A	3 <sup>rd</sup> A ISSUE: FEBRUARY1983		

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6.26.1	3 <sup>rd</sup> ISSUE: FEBRUARY 1992
6.27.A	3 <sup>rd</sup> A ISSUE: NOVEMBER 1982
6.27.1	3 <sup>rd</sup> ISSUE: FEBRUARY 1992
6.28.A	3 <sup>rd</sup> A ISSUE : FEBRUARY 1993
6.28.1	3 <sup>rd</sup> ISSUE: FEBRUARY1992
6.29.B	3 <sup>rd</sup> B ISSUE: MARCH 1987
6.30	3 <sup>rd</sup> ISSUE: APRIL 1978
6.31.B	3 <sup>rd</sup> B ISSUE: NOVEMBER 1998
6.32.A	3 <sup>rd</sup> A ISSUE: NOVEMBER1998
6.33 - 6.44	3 <sup>rd</sup> ISSUE: APRIL 1978
6.45.B	3 <sup>rd</sup> B ISSUE: MAY 1992
6.46.D	3 <sup>rd</sup> DISSUE: APRIL 1995
6.46.1	3 <sup>rd</sup> ISSUE: MAY 1992
6.47.A	3 <sup>rd</sup> A ISSUE: MAY 1979
6.47.1 - 6.47.2	3 <sup>rd</sup> ISSUE: MAY 1992
6.48.B	3 <sup>rd</sup> B ISSUE: MAY 1992
6.49	3 <sup>rd</sup> ISSUE: APRIL 1978
APPENDIX 1 and 2	3 <sup>rd</sup> ISSUE: MARCH 1998

3<sup>rd</sup> B ISSUE: NOVEMBER 1998

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## WARNING!

For gliders with a serial no. up to 54, the landing gear wheel brake control is independent. The wheel brake control can be actuated from both seats ( see fig. 6-17).

The air brake control transmission has the same elements (see fig. 6-18). The air brake and wheel brake controls are adjusted, in a similar way as that mentioned above.

For the gliders with a serial number below 365:

After every 100 flight hours, perform an inspection of the air brake control handles, welding and adjacent area (area shown in fig 6-16, page 6.31.B). Use a magnifier of minimum 1x10.

If any cracks are detected in the welding or adjacent area, stop the glider from flight and replace the two handles.

If any doubt exists, a penetrant dye may by used for crack detection.

## 6.4.6.6. Flap control

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The control force is trasmitted through metallic rods ( see fig. 6-19). Maintenance consists in greasing, correct lock check and travel and symmetry adjustment from rods 19.

When inspecting check the rapid, tapered coupling elements and particularly the flap part.

## **WARNING!**

For gliders with a serial no. up to 30, the flap is locked in the five settings by inserting the control lever into the locking plate points. The other control elements are similar to those described above ( see fig. 6-20).

## 6.4.7. Instruments

The instruments connection to the pressure system is shown in fig. 6-21.

3rd A ISSUE: NOVEMBER 1998

Page: 6.32.A

			D = 1 0		
Νo	Revised pages	Modification description	Date of approval	of inser tion in the manual	Signature
20.	2.2; 26.1.A 26.2	Increase of the number of landings until the first overhaul and between overhauls for the gliders owned by the Romanian aeroclub.	21.04		
21	. 11.A; 27.A	Additional indi- cations concer- ning the schock- -absorber mounting and completion of the landing procedure.	24.02 1994		
22	26.H;26.l.H 26.2.A;36.I 37.C; 37.l. Appendix 1/10.199° Appendix 2/10.199	20 years from the manufacturing date.	1		
2	3. 22.1.A	Check of air brak control handles	e		

## **WARNING**:

After the glider mounting, the vital points shall be inspected by two persons, independently. The vital points of the glider are: wing-to-fuselage junction (bolt tightening, controls coupling and locking), vertical-to-horizontal tail junction (bolts tightening and locking, semi-elevators coupling mode), landing gear (locking of the bolts and nuts for shock-absorber, fork and wheel attachment.

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If any intervention was made during the revisions (for adjustment, parts replacement or checking by dismounting), the correct mounting is checked by two persons independently, following also the correct direction of the control surface movement, depending on the direction of the air brake control movement!

For the gliders with a serial number below 365:

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After every 100 flight hours, perform an inspection of the air brake control handles, welding and adjacent area. Use a magnifier of minimum 1x10.

If any cracks are detected in the welding or adjacent area, stop the glider from flight and replace the two handles.

If any doubt exists, a penetrant dye may by used for crack detection.