M.I.C.M. - C.N.I.A.R.
INTREPRINDEREA DE CONSTRUCTII AERONAUTICE
2200 B R A S O V

MANDATORY SERVICE BULLETIN

IS-29D2/E0-06

APPROVED BY:	DEPARTMENT OF CIVIL AVIATION with no. 2639/06.03.1985
PRODUCT:	IS-29D2 glider
OBJECT:	Safe life and service life increase
COMPLIANCE:	Endurance studies of the manufacturing plant and servicing experience

Revised translation: January 1987

DATE: 16.02.1985

1. PLANNING INFORMATION

A. Applicability

This bulletin is applied to all the IS-29D2 gliders.

B. Reason

Increase of gliders safe life.

C. Description

The bulletin modifies the total safe and service life of the glider, as follows:

- total safe life: 3750 flight hours (15.000 landings)
- total service life: 20 years
- safe life until the first general revision and between general revisions: 750 flight hours (3000 landings)
- service life until the first gen.rev. and between general revisions: 6 years.

D. Compliance

Endurance studies and servicing experience of the manufacturing plant, for the IS-29D2 gliders.

E. Accomplishment

The bulletin shall be applied by:

- the user, to the gliders under servicing
- the manufacturing plant, to the gliders under stockage or manufacturing.

F. Material - Cost and Availability

None.

G. Tooling

None.

H. Weight and Balance

Not affected.

I. References

Study compiled by the manufacturing plant concerning the gliders servicing behaviour and endurance tests.

J. Documents affected

The IS-29D2 Flight and Maintenance Manual, 5th and 4th issue are modified by the pages appended to the present bulletin.

2. USING INSTRUCTIONS

A. Work preparation

None.

B. Application

The modified pages shall be inserted in the IS-29D2 Flight and Maintenance Manual, 5th and 4th issue.

C. Servicing instructions

The following shall be complied with during servicing:
- total safe and service life
- safe and service life between general revisions.

3. MATERIAL INFORMATION

A. Material list

None.

B. Tooling list

None.

C. Supply indications

None.

4. IDENTIFICATION

The bulletin application shall be registered in the glider log book.

5. APPENDICES

- Amendment no. 6 the IS-29D2 Flight and Maintenance Manual, 5th issue
- Amendment no. 6 the IS-29D2 Flight and Maintenance Manual, 4th issue.

REVISION RECORD CARD

Part no.	Amended page	Revision nature	Date of approval	Date of insertion	Signature
1.	A.1.1.-A.1.13	Dittel radio installation (optional)	6.04.1979		
2.	0.3.A; 1.0.A; 1.5.A;	Modification of canopy hinges to the gliders serial no. 122 and subs.	31.01.1980		
3.	03B; 6.0/2A; 6.0/3A; 6.23A -6.27A	Modification of rudder control to the gliders serial no.142 and subs.;optional up to the glider serial no. 141.	08.08.1980		
4.	1.0.B;1.3A; 1.4A;1.5B; 2.0.A;2.4A; 2.7A;4.7A; 6.0/2B;6.0/3B 6.18A;6.23B; 6.28A;6.28.1.	Constructive modifications for the glider serial number 161 and subs.	25.05.1982		
5.	0.3D; 6.9.A	Time increasement between two overhauls	25.09.82		
6.	6.15.A 0.3E; 6.9B 6.14.A;	Safe life increase.	06.03.85		
7.	6.4.A; 6.38.A; 6.39.A;	Additional maintenance indications	20.03.85		
8.	6.37.A;6.37.1A	Documents improving	19.06.85		
9.	4.2.A;6.15.B 6.16.A	Nose release mounting (optional)	19.06.85		

6.3. MAINTENANCE WORKS

6.3.1. UNPERIODICAL INSPECTIONS

6.3.1.1. The daily inspection - is executed whenever the aircraft is prepared for flight activity.

This inspection is executed in compliance with paragraph 4.1.

6.3.1.2. The occasional inspection - is executed whenever abnormal events occurred (transport blows, landings outside the airfield, abnormal operation, etc).

When executing these inspections particularly insist on elements having been stressed or to which damages or abnormal operation were noticed.

After excessive stresses, the inspection shall be executed carefully to all vital elements (wing junction, tails and adjacent structures fittings, controls connection to control surfaces inspecting at the same time the painting and skin condition which could indicate the possible local overstresses.

6.3.2. INSPECTIONS AND REVISIONS SUCCESSION

The maintenance works and the glider revisions have the following periodicity :

6

C= inspection after every 100 flight hours.
R_1=revision after every 200 flight hours or one year of operation.
R_2=revision after every 500 flight hours or 4 years of operation.
R_G=general revision after 750 flight hours, 3000 landings or 6 years of operation.
The total safe life of the glider is 3750 flight hours or 15.000 landings or 20 years.

The only assembly included into the glider construction, which has a limited safe life is the release. In compliance with TOST indications, the release is dismounted and sent for revision, after 2000 lunches or 3 years of operation.

SYSTEMS MAINTENANCE

Maintenance works periodicity

According to indications
After 750 hours
After every 500 hours
After every 200 hours
After every 100 hours

LANDING GEAR

1. Visual check of landing gear holder and riveting to structure.
2. Visual check of wheel fork (distortion corrosion).
3. Visual check of shock-absorber coddition (greasing).
4. Inspection of wheels (main wheel and tail wheel), bearings, tyres.
5. Wheel brake (greasing of control and shoe drive cam shaft), inspection of shoes and drum surface.
6. Inspection of wheel fork - to - landing gear support joint, by dismounting, wear evaluation and greasing.
7. Inspection of wheel fork - to - shock - absorber and shock--absorber fork joint by dismounting (wear and greasing).

AIRCRAFT

1. Visual inspection of glider exterior.
2. Inspection of glider structure condition.
3. Visual check of skin junction areas on fuselage and wing.
4. Visual check of wing junction, greasing.
5. Wear check to wing-to-fuselage junction bolts.
6. Cleaning of wing junction fittings, measurement.
7. Visual check of tails junction, greasing.
8. Wear check to horizontal tail attachment pin.
9. Dismounting of control surfaces, inspection of hinges clearances.
10. Plexiglass canopy (visual check)
11. Canopy hinges, greasing inspection (corrosion must not exist).
12. Seat, padding - adjustment, belts attachment.
13. Visual check of instrument panel shock-absorbers, instruments, etc.
14. Instrument panel dismounting, replacement of instrument panel shock-absorbers (depending on their condition).
15. Compass trim.
16. Air scoops, pipes, sealings, wiring - visual check.
17. Pipes replacement (rubber or plastic pipes).
18. Watter settler - drainage, sealing (Braunschweig system)
19. Replacement of rubber elements to Braunschweig system.
20. Radio, antenna wiring (if any) according to equipment instructions.
21. Check of board instruments in the workshop.

CONTROLS

1. Visual check of wiring, bearing pulleys, greasing, replacement of sandow (according to its condition).
2. Visual check of sticks, under floor area, inspection of elevator and airleron control clearance, check of air brake control lock, inspection of cables tension.
3. Visual check of trim tab and trim spring condition.
4. Visual check of rudder pedal assembly, greasing, sandow replacement (according to condition).

LIST OF INSERTED MODIFICATIONS

The spots where modifications were inserted are marked by a vertical line and the respective modification number.

Number	Revised pages	Character of modification	Date of approval	Date of effecting it in the handbook's text	Signature
1.	14A, 14.1.A	Bahavior near stalling speed	july 1976	July. 1976	
2.	26.A 36.A	The horizontal tail mounting	oct. 1976	oct. 1976	
3.	4A; 40A	Braunschweig system capability	april 1977	april. 1977	
4.	19.A.1	Equipament specification	april 1977	april 1977	
5.	41.A	Position error correction to indicated airspeed	15.11.1977		
6.	27.A 37.A 38.A	Safe life increase			
7.		FOR ROMANIA ONLY			
8.	27.B. 27.1. 37.B. 38.B. 38.1.	FOR ROMANIA ONLY	26.01.1990		

indications must be observed :

- the fuselage shall be seated on at least 2 profiled blocks placed under one resisting panel;

- for securing the fuselage, one of the two pairs of cylindrical bolts will be used:

- the wings shall be placed with the leading edge down and the following points will be chosen for supporting them:

- the span for its basis;

- a profiled block placed at 1/3 of the wing's length;

- the stabilizer and the depth rudder shall be fixed on a profiled block, the depth rudder being secured against motion. It is recommended that this ensemble shall be also placed with the leading edge down, during transportation.

7.5. SEQUENCE OF REPAIRS

Revision and maintenance works necessary to a proper operation may be schematically represented, versus flight hours, as follows:

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C=inspection after every 100 flight hours.
R_1=revision after every 200 flight hours or one year of operation.
R_2=revision after every 500 flight hours or 4 years of operation.
R_G=general revision after 750 flight hours, 3000 landings or 6years of operation.

The total safe life of the glider is 3750 flight hours or 15,000 landings or 20 years.

SYSTEMS MAINTENANCE

Maintenance works periodicity

6

	After every 100 hours	After every 200 hours	After every 500 hours	After 750 hours	According to indications
					1
LANDING GEAR					
1. Visual check of landing gear holder and riveting to structure.		*			2
2. Visual check of wheel fork (distortion corrosion).		*			2
3. Visual check of shock-absorber coddition (greasing).	*				
4. Inspection of wheels (main wheel and tail wheel), bearings,tyres.		*			
5. Wheel brake (greasing of control and shoe drive cam shaft), inspection of shoes and drum surface.		*			2
6. Inspection of wheel fork - to - landing gear support joint, by dismounting, wear evaluation and greasing.				*	
7. Inspection of wheel fork - to - shock - absorber and shock--absorber fork joint by dismounting (wear and greasing).				*	
AIRCRAFT					
1. Visual inspection of glider exterior.	*	*			
2. Inspection of glider structure condition.			*		
3. Visual check of skin junction areas on fuselage and wing.					5
4. Visual check of wing junction, greasing.		*			
5. Wear check to wing-to-fuselage junction bolts.				*	5
6. Cleaning of wing junction fittings, measurement.				*	5
7. Visual check of tails junction, greasing.		*			
8. Wear check to horizontal tail attachment pin.				*	
9. Dismounting of control surfaces, inspection of hinges clearances.				*	
10. Plexiglass canopy (visual check)	*				
11. Canopy hinges, greasing inspection (corrosion must not exist).		*			
12. Seat, padding - adjustment, belts attachment.		*			
13. Visual check of instrumemt panel shock-absorbers, instruments,etc.		*			
14. Instrument panel dismounting, replacement of instrument panel shock-absorbers (depending on their condition).				*	3
15. Compass trim.				*	
16. Air scoops, pipes, sealings, wiring - visual check.				*	
17. Pipes replacement (rubber or plastic pipes).				*	
18. Watter settler - drainage, sealing (Braunschweig system)		*			
19. Replacement of rubber elements to Braunschweig system.				*	
20. Radio, antenna wiring (if any) according to equipment instructions.			*		
21. Check of board instruments in the workshop.				*	6
CONTROLS					
1. Visual check of wiring, bearing pulleys, greasing, replacement of sandow (according to its condition).		*			
2. Visual check of sticks, under floor area, inspection of elevator and airleron control clearance, check of air brake control lock, inspection of cables tension.		*		*	
3. Visual check of trim tab and trim spring condition.		*			
4. Visual check of rudder pedal assembly, greasing, sandow replacement (according to condition).		*			

	According to indications	After 750 hours	After every 500 hours	After every 200 hours	After every 100 hours
5. Controls removal from structure, replacement of worn out elements, greasing,			*		
6. Skin and control surfaces structure (visual check).				*	
7. Replacement of control surfaces fabric (rudder and elevator).			*		
8. Release, greasing (including the control).					*

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1. The operations indicated in this column shall be carried out after every 200 flight hours or at least once a year, preferably at the beginning of the flying season.

2. The landing gear shall be also checked every time an abnormal landing occured (forced or heavy landing).

6 3. The trim shall be carried out after every installation of new instruments on the instrument panel, particularly those creating electromagnetic fields.

4. The operations shall be carried out according to the maintenance and servicing instructions for TOST releases, type E72 and E73.

5. In case of corrosion traces, use very fine abrasive paper to remove them (by circular movement) and then grease.

6. The check shall be also performed if wrong indications are noticed.