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IS-28M2/GR/CO-04

MANDATORY SERVICE BULLETIN



APPROVED BY : ROMANIAN CIVIL AIRWORTHINESS AUTHORITY

with no. 1496/16.02.1999

PRODUCT : IS-28M2/GR MOTOR GLIDER

SUBJECT : CHECKING THE CLEARANCE BETWEEN THE ELEVATOR
CONTROL CABLE AND THE FUEL PIPE CONNECTING THE
FUEL TANK TO THE FUEL STRAINER

COMPLIANCE : MODIFICATION RECORD CARD 28M2.07.0.1242 ISSUED BY
IAR S.A. BRAȘOV



1. PLANNING INFORMATION

1.A. APPLICABILITY

This Service Bulletin is applied to the IS-28M2/GR motor gliders S/N 75,76,77,78 and 79.

1.B. REASON

Finding out, during a motor glider servicing, that the clearance between the elevator control cable and the fuel pipe is reduced.

1.C. DESCRIPTION

An immediate inspection of the elevator control cable clearance is performed in the fuel pipe area. After checking the clearance, proceed according to this Service Bulletin, depending on the value found out.

1.D. ACCOMPLISHMENT

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

1.E. MATERIAL-COST AND AVAILABILITY

If the fuel pipe P/N 28M2.F10.0220.05 must be replaced, it will be delivered by IAR-Brașov, free of charge.

The application costs are to be borne by the user.

1.F. TOOLING

Tool kit.

1.G. WEIGHT AND BALANCE

Not affected.

1.H. REFERENCES

28M2.07.0.1242 Modification Record Card / IAR S.A. Brașov.

1.I. DOCUMENTS AFFECTED

Amendment no.3 to the IS-28M2/GR Maintenance Manual.

2. ACCOMPLISHMENT INDICATIONS

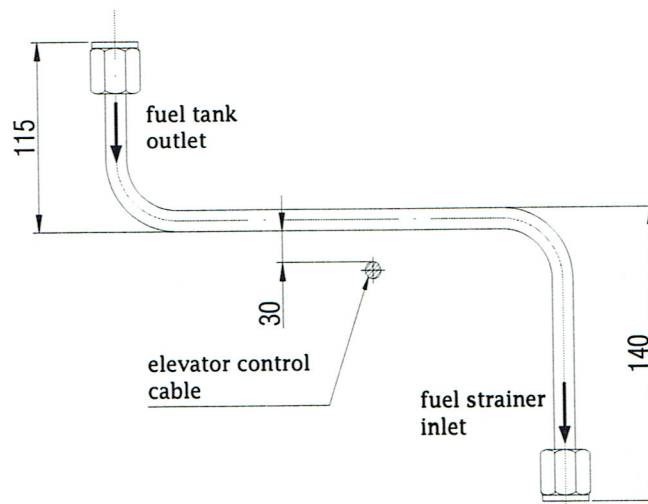
2.A. WORK PREPARATION

- The motor gliders is positioned in an illuminated place; if not, a portable lamp will be used.
- Remove the baggage compartment cover, located in the cockpit, over the fuel tank.
- Open the inspection cover on the fuel strainer, located on the fuselage bottom side.

2.B. APPLICATION

- Look through the fuel strainer inspection hole and evaluate the clearance between the elevator control cable and the fuel pipe connecting the fuel tank to the fuel strainer.

1. If the evaluated clearance is of approx. 25 to 35 mm, the mounting is correct.



To eliminate the possibility of a later wrong mounting, mark two arrows with a marker, indicating the fuel flow direction, as shown in the drawing.

2. If the clearance is low (5 to 10mm), remove the fuel pipe and mount it again, but reversed, as shown in the drawing, after having marked the fuel flow direction at both ends-as shown in the drawing.



3. If the clearance is low (5 to 10mm), but after removal a friction mark was found out on the pipe, replace the pipe with a new one delivered by the manufacturing factory, free of charge.

Dismounting-mounting

- ◆ To facilitate the access, remove also the circular inspection cover located on the fuselage bottom side, near the access to the fuel strainer. The removal is carried out by unscrewing the attachment screws with a screw driver.
- ◆ Drain the fuel tank (exhaust valve).
- ◆ Cut the locking wires of the nuts located at the pipe ends. For the upper side, the operation is carried out through the baggage compartment cover and for the lower side through the two inspection covers.
- ◆ Unscrew the two nuts and remove the old pipe (through the lower side).
- ◆ Insert the new pipe (through the lower side), observing the fuel flow direction marked on it.
- ◆ Tighten the nuts and check the clearance.
- ◆ Lock the nuts with stainless wire of 0.8mm. dia. and check again the clearance.
- ◆ Fill the motor glider with fuel and actuate the electrical booster pump for 3 to 4 min.
- ◆ Check for fuel leakage.
- ◆ Mount the lower inspection cover, the baggage compartment cover and close the fuel strainer access hole.

2.C. APPLICATION

None.

3. MATERIAL INFORMATION

3.A. MATERIAL LIST

The materials below are delivered quickly and free of charge, upon request:

- a) Fuel pipe P/N 28M2.F10.0220.05 1pc ;
- b) Locking wire of 0.8mm dia.-3 STAS 1011-75 1m ;



3.B. MODIFICATION LIST

Modification Record Card 28M2.07.0.1242 indicating the fuel flow direction for all the fuel pipes.

3.C. SUPPLY INDICATIONS

None.

4. IDENTIFICATION

The application of this Service Bulletin shall be recorded in the motor glider log card.

The Service Bulletin is accompanied by :

- ▣ Amendment no.3 to the IS-28M2/GR Maintenance Manual.

5. APPENDICES

- ▣ Amendment no.3 to the IS-28M2/GR Maintenance Manual.

AMENDMENT LIST

The amendments to the present manual must be recorded in the table below.

The new or amended texts on certain pages must be indicated by a black vertical line.

Amendment no.	Affected section	Affected pages	Date of issue	Approval	Date of approval	Date of insertion	Signature
1	0	(i)	JULY 1998				
		(ii)	JULY 1998				
	4	4.3	JULY 1998				
2	0	(i)	SEPT. 1998				
		(ii)	SEPT. 1998				
	5	5.18.	SEPT. 1998				
3	0	(i)	FEB. 1999				
		(ii)	FEB. 1999				
	1	1.5.	FEB. 1999				

LIST OF EFFECTIVE PAGES

Section	Page	Date of issue	Section	Page	Date of issue	
0	(i)	FEB. 1999	5	5.11.	AUGUST 1997	
	(ii)	FEB. 1999		5.12.	AUGUST 1997	
	(iii)	AUGUST 1997		5.13.	AUGUST 1997	
1	1.1.	AUGUST 1997		5.14.	AUGUST 1997	
	1.2.	AUGUST 1997		5.15.	AUGUST 1997	
	1.3.	AUGUST 1997		5.16.	AUGUST 1997	
	1.4.	AUGUST 1997		5.17.	AUGUST 1997	
	1.5.	FEB. 1999		5.18.	SEPT. 1998	
	1.6.	AUGUST 1997		5.19.	AUGUST 1997	
	1.7.	AUGUST 1997		5.20.	AUGUST 1997	
	1.8.	AUGUST 1997		5.21.	AUGUST 1997	
	1.9.	AUGUST 1997		5.22.	AUGUST 1997	
	1.10.	AUGUST 1997		5.23.	AUGUST 1997	
	1.11.	AUGUST 1997		5.24.	AUGUST 1997	
	1.12.	AUGUST 1997		5.25.	AUGUST 1997	
	1.13.	AUGUST 1997		6	6.1.	AUGUST 1997
	1.14.	AUGUST 1997			6.2.	AUGUST 1997
	1.15.	AUGUST 1997			6.3.	AUGUST 1997
	1.16.	AUGUST 1997			6.4.	AUGUST 1997
	1.17.	AUGUST 1997			6.5.	AUGUST 1997
	1.18.	AUGUST 1997			6.6.	AUGUST 1997
	1.19.	AUGUST 1997			6.7.	AUGUST 1997
	1.20.	AUGUST 1997		7	7.1.	AUGUST 1997
1.21.	AUGUST 1997	7.2.			AUGUST 1997	
1.22.	AUGUST 1997	7.3.			AUGUST 1997	
1.23.	AUGUST 1997	8	8.1.	AUGUST 1997		
1.24.	AUGUST 1997		8.2.	AUGUST 1997		
2	2.1.		AUGUST 1997	8.3.	AUGUST 1997	
	2.2.		AUGUST 1997	8.4.	AUGUST 1997	
	2.3.		AUGUST 1997	8.5.	AUGUST 1997	
3	3.1.		AUGUST 1997	8.6.	AUGUST 1997	
	3.2.		AUGUST 1997	8.7.	AUGUST 1997	
	3.3.		AUGUST 1997	8.8.	AUGUST 1997	
	3.4.		AUGUST 1997	8.9.	AUGUST 1997	
	3.5.		AUGUST 1997	8.10.	AUGUST 1997	
	3.6.		AUGUST 1997	8.11.	AUGUST 1997	
4	4.1.	AUGUST 1997	8.12.	AUGUST 1997		
	4.2.	AUGUST 1997	8.13.	AUGUST 1997		
	4.3.	JULY 1998	9	9.1.	AUGUST 1997	
	4.4.	AUGUST 1997		9.2.	AUGUST 1997	
5	5.1.	AUGUST 1997	10	10.1.	AUGUST 1997	
	5.2.	AUGUST 1997		10.2.	AUGUST 1997	
	5.3.	AUGUST 1997	11	11.1.	AUGUST 1997	
	5.4.	AUGUST 1997		11.2.	AUGUST 1997	
5.5.	AUGUST 1997	11.3.		AUGUST 1997		
5.6.	AUGUST 1997	11.4.		AUGUST 1997		
5.7.	AUGUST 1997	11.5.		AUGUST 1997		
5.8.	AUGUST 1997	11.6.		AUGUST 1997		
5.9.	AUGUST 1997	11.7.		AUGUST 1997		
5.10.	AUGUST 1997	11.8.		JULY 1998		

If the adjustments of the two control linkages must be remade, all the lockings shall be remade with LOCTITE 242.

The R.P.M. indicator shall be checked yearly. If any deviations are noticed, these shall be mentioned in the form of a placard, located near the R.P.M. indicator :

TheR.P.M. corresponds to 5,800 r.p.m. TheR.P.M. corresponds to 5,500 r.p.m.

1.12. FUEL SYSTEM (Fig. 1.11.)

The fuel system includes :

- metal (alluminium) fuel tank;
- fuel strainer with drain valve;
- fuel strainer drain control, located on the luggage compartment panel;
- booster pump;
- fuel cock actuated from instrument panel;
- return pipe ;
- fuel pump mounted on engine;
- electronic fuel gauge ;
- pipes and hoses.

NOTE: Beginning with motor glider S/N 80, the fuel pipes have a marking at both ends, indicating the fuel flow direction.

1.13. STATIC AND TOTAL PRESSURE ANEMOBAROMETRIC SYSTEM (Fig. 1.12.)

The Pitot tube is located on the right wing lower side.

The pipes are rigid (metal) type and in the instruments connection area (behind the instrument panel) and wing-to-mainplane junction area they are flexible rubber or polyethylene pipes (hoses).

At the entry to mainplane there are 2 metal settlers for condensed water drainage. The settlers are drained from 2 gasket-screws (right side).

1.14. ELECTRIC SYSTEM (Fig. 1.13.)

The electric system includes 2 parts :

- generation and start;
- users.

The generation and engine start component is located in the engine compartment. The generator is incorporated in the engine case ; the maximum power delivered is of 250W. The power node includes : a regulator-rectifier, a smoothing condenser, fuses, a control relay for starter and the accumulator battery. The voltammeter, located on instrument panel, is connected to the terminals of a shunt.

NOTE: The accumulator battery may be replaced by a dry-type one with the same characteristics.

The users-component includes 2 groups :

- engine control instruments group (indicator+transducer): oil temperature indicator, oil pressure indicator, cylinder head temperature indicator and fuel gauge ;
- optical and acoustic warning group : generation failure warning, minimum fuel pressure warning and landing gear locking warning.

The users groups are supplied from the main bus-bar through circuit-breakers adequately dimensioned.

The fuel pump starting control is connected to the users-part.

The electric system is provided with a master switch.