M.I.C.M. - C.N.I.A.R.

INTREPRINDEREA DE CONSTRUCTII AERONAUTICE

2200 B R A S O V

# MANDATORY SERVICE BULLETIN

IS-28M2/EO-12

**APPROVED BY** : DEPARTMENT OF CIVIL AVIATION
with no. 2639 / 06.03.1985

**PRODUCT** : IS-28M2 motor glider

**OBJECT** : Safe and service life increase

**COMPLIANCE** : Endurance studies of the manufacturing plant and servicing experience

DAZE: 09.02.1985

1. PLANNING INFORMATION

A. Applicability

This bulletin is applied to all the IS-28M2 motor gliders.

B. Reason

Increase of motor gliders safe life.

C. Description

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

- total safe life : 4000 flight hours (or 25,000 landing).
- total service life : 20 years.
- safe life until the first overhaul and between overhauls : 750 flight hours (or 6000 * landings).
- service life until the first overhaul and between overhauls : 6 years.

* the technical safe life (in landings) for the IS-28M2 motor gliders to which the Service Bulletin CR-6 was not applied is 4000 landings.

D. Compliance

Endurance studies of the manufacturing plant and servicing experience accumulated for the IS-28M2 motor glider.

E. Accomplishment

This bulletin shall be applied by :

- the user, to the motor gliders under servicing ;
- the manufacturing plant, to the motor 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 servicing behaviour and endurance tests of the IS-28M2 motor gliders.

J. Documents affected

The IS-28M2 Flight and Maintenance Manuals, 2nd and 3rd issue, are amended by the pages appended to this bulletin.

2. USING INSTRUCTIONS

A. Work preparation

None.

B. Application

The modified pages shall be inserted in the Flight and Maintenance Manual, 2nd and 3rd issue.

C. Servicing instructions

The following shall be complied with during servicing :

- total safe and service life.
- total safe and service life between overhauls.

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 motor glider log book.

5. APPENDICES

Amendment no.27 to the IS-28M2 Flight and Maintenance Manual, 2nd issue.
Amendment no.8 to the IS-28M2 Flight and Maintenance Manual, 3rd issue.

| Ref. No. | Revised pages | Description of revision | Date of approval | Date of insertion | Sign. |
|---|---|---|---|---|---|
| 19. | Appendix 12 | Anticollision Lamps Installation (ACL900-DITTEL) OPTIONAL | 11.11.1980. | | |
| 20. | Appendix 13 | Position Lights Installation (OPTIONAL) | | | |
| 21. | 0.7.F; 4.13.2.B | Landing gear warning system microswitch mounting (for serial no.40 and subs.) | | | |
| 22. | 07.G; 3.17.A; 4.7.C | Additional inspection for the landing gear. | 15.04.81. | | |
| 23. | Appendix 14 | Landing gear microswitches mounting (optional) | 14.09.1981. | | |
| 24. | 07H, 4.11.C.; 4.11.1.B; 4.11.2.B; Appendix 15 | Time between two major overhaul increase. | 22.10.81. | | |
| 25. | Appendix. 16 | TRIM. TABS FITTING. ON AILERONS (OPTIONAL) | | | |
| **26.** | **3.15.A 4.4.A** | **Flying controls inspection** | | | |
| SEL 1 | 2.9.E | Correction of English version (the Romanian version is not modified) | | | |
| 27. | 4.11.2.C | Safe life increasing | | | |
| 28. | 2.7B | Adding pther types of engine oil | | | |

## 4.3. Repairs and General revisions

### 4.3.1. Repairs

Fuselage and wings major repairs shall be carried out by the manufacturer or an authorized enterprise. Observe the Manufacturers Manual for engine, propeller and equipments repairs.

### 4.3.2. Overhauls

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The time between overhauls is established , for the moment , to 750 flight hours , 6 years or 6000 landings.

The total safe life is 4000 flight hours , 25,000 landings and 20 years respectively.

### 4.3.3. Rigging

The rigging effected by the manufacturer shall be checked during the yearly overhauls (or after 100 hours of flight). Control surface deflections shall be measured according to the sheet in the Manual and compared to the first ones. If they are not within the allowances, the rigging shall be repeated.

Controls plays shall be less than the following values :

- at the stick (measured from the end) ;
  - elevator control 2 mm ( 0.079 in)
  - ailerons control 2 mm ( 0.079 in)
- at the rudder bar pedals 3 mm (0.118 in )
- the dead stroke at the diving brake control lever 5 mm max. (0.197 in.max)

If the clearances exceed the pre-set values, dismount the control and replace the worn out parts.

| Rev No. | No of Pages | Description of Revision | Revision Date | Date Incorporated | Signature |
|---|---|---|---|---|---|
| 7. | P.V.1.E<br>1.2.A;<br>1.3.A;<br>1.4.A;<br>1.5.A;<br>2.10.A;<br>3.20.A;<br>3.21.B;<br>4.22;<br>4.30.A; | Additional indications concerning the flight servicing | 8602<br>6.06.1984 | | |
| SEL 2 | 1.6.A;<br>2.3.A;<br>2.4.A;<br>2.5.A;<br>2.7.A;<br>2.12.A;<br>2.1A.A; | Correction of English version (the Romanian version is not modified). | 6.06.84 | | |
| SEL 3 | 1.2.B<br>2.12.B<br>P.V.1.F | Correction of English version (the Romanian version is not modified) | | | |
| SEL 1A" | 2.12.B.A". | Correction only S/N 04 and 33. | | | |
| 8. | P.V.1.G<br>4.18.B | Safe life increasing | | | |
| 9. | 2.9.A | Adding other types of engine oil. | | | |
| 10. | | Only for Romania | | | |
| 11. | 1.1.A<br>A.2.1.A<br>A.2.4.A | Installation of 160-BT blade. | 17.03.92 | | |
| 12. | 1.1.B<br>3.8.A<br>A.2.4.B | Application of Service Bulletin no. ~~1N/18.12.91~~ Hoffmann. | 19.05.92 | | |

## 4.3.2. Overhaul

### 4.3.2.1. General

8 The time between overhauls is established , for the moment , to 750 flight hours, 6 years or 6000 landings.
The total safe life is 4000 flight hours, 25,000 landings and 20 years respectively.

### 4.3.2.2. Overhaul inspection at 750 hours

When performing the 750 hours inspection carry out the operations mentioned below. When carrying out these operations follow the indications given in the repair manual.

Engine In accordance with the operating manual of Sportavia Limbach SL 1700 EI engine 500 hours inspections.

Propeller In accordance with the Hoffmann HO-V-62-R propeller operating and maintenance manual.

Landing Gear Dismantle and inspect in accordance with manufacturer's repair manual, all worn parts are to be replaced.

Fuselage Inspect fuselage stressed structure and fittings to wing and tailplane in accordance with the manufacturer's repair manual.
Replace instruments panel shock absorber mounts.

Rigging Pins Check all rigging pins and bores for excessive wear, see manufacturer's repair manual "Appendix 1".

Wing Inspect main spar and wing fittings in accordance with manufacturer's repair manual.