## ILMAILUHALLITUS

NATIONAL BOARD OF AVIATION

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## MUUTOSMÄÄRÄYS AIRWORTHINESS DIRECTIVE

M 1737/90 Revision 1 15.10.1990

Continuing airworthiness of an aircraft is contingent upon compliance with an airworthiness directive. An action according to the AD may be performed, if not stated otherwise in the body of the AD, by an aircraft repair station or aircraft mechanic according to his/her validation, for sailplanes and aircraft in the experimental category by the person responsible for the maintenance of the aircraft. The action performed shall be noted in the technical journal of the aircraft or the sailplane journey log book. The airworthiness directive has been issued on basis of §14 of the Aviation Act (595/64) and §20 of the Aviation Ordinance (525/68).

## 1737. Eiriavion. Propeller hub mounting.

Applies to: PIK 20E powered sailplanes, all serial numbers.

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Reference: LBA LTA 90-239 (Germany) and experience gained in Finland.

Effective date: 15th of November 1990.

Validity: This directive is valid until further notice.

Reason: The propeller hub mounting nut locking plate may shear off, which will result in the propeller coming off.

## Action:

A. Inspect the propeller hub mounting before further flight and thereafter at every 25 hours of engine running time but in any case annually:

Dismount the propeller.
Dismount the mounting nut and discard the locking plate. Ensure that the edges of the propeller shaft wedge groove are still in such a condition that they are able to carry the load from the locking plate. If the groove is deformed, then install in front of the bearing a washer with a diameter equal to the diameter of the inner bearing ring and with a thickness equal to the dimension of the deformation.
Check the condition of the mounting nut and the bearing. Install a new locking plate, p/n SKF MB-7 or equivalent and the propeller.

B. At the next periodic inspection, add a new note 17 in paragraph 4.2.4 (Notes in powerplant maintenance list) of the PIK 20 E Service Manual that includes the action according to para. A, and refer to this note at propeller item nr. 8 in the maintenance and inspection list 4.2.3.

For Chief, Technical Division Chief, Airworthiness Section

E. Ailio

This airworthiness directive cancels the AD M 1737/90.

NATIONAL BOARD OF AVIATION, FINLAND Flight Safety Department Technical Division 12 October 1990

Airworthiness Directives, PIK 20 E series powered sailplanes

SUMMARY: The NBA adopted on 31 August a new Airworthiness Directive M 1737/90, applicable to all PIK 20 E Series powered sailplanes, which required a recurring inspection of the propeller mounting. This AD was prompted by an incident in which the propeller came loose during ground roll. The primary reason for the incident was that the plate securing the mounting nut sheared off. Consequently the mounting nut was free to turn loose and the propeller hub slided from the propeller axis. This condition, if not corrected, could result in the propeller coming loose during flight over sea or other region unsuitable for landing, with possibly fatal consequences. According to the original AD, a new locking plate should be manufactured locally. The locking plate is, however, generally available on the market, and the AD has been amended to reflect this.

EFFECTIVE DATE: 15th of November 1990.

SERVICE BULLETINS: No service Bulletins have been issued on this matter.

SUPPLEMENTARY INFORMATION: One incident of the type described above has been reported in Finland. The Civil Aviation Authority of the Federal Republic of Germany issued shortly before this incident an airworthiness directive (LBA Lufttüchtigkeits-anweisung nr. 90-239) on the same subject. The German AD requires the inspection to be performed at every 10 hours of engine running time. After consulting experts from the former Eiri aircraft factory the NBA decided to adopt an inspection interval of 25 hours of engine running time; the inspection shall anyhow be performed annually.

The Ad requires the locking plate to be renewed at every inspection. A new plate should be procured locally. The inspection may be performed by the owner of the glider or members of the flying club. Material costs should stay within \$10 per sailplane.

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