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MANDATORY

**SERVICE
BULLETIN**

MANDATORY SERVICE BULLETIN Z142C/31a

Technical content of the document approved
on the basis of DOA Approval No. EASA.21J.110

„SAFETY RELATED“

1. **DATE:** March 8, 2007
2. **APPLICABLE TO:** All Z142C aircraft with unstrengthened wings.
3. **REASON:**

After the AMU1 Acceleration Monitoring Unit has been entered into operation on ZLIN aircraft of Z42 series, it has been found out that real intensity of acrobatic operation of some aircraft considerably exceeds original expectations that have been used for determination of operation limits. These aircraft exceed determined total limit load spectra and limit design acrobatic load spectrum

To ensure a safety, it is necessary from these reasons to change the limits for acrobatic safe life.
4. **ACTIONS REQUIRED:**

The aircraft with unstrengthened wings cannot be further operated in ACROBATIC category.

 - 4.1 The aircraft with unstrengthened wings, which have not reached the limit of 190 hours TIS in ACROBATIC and/or UTILITY category, can reach this limit in UTILITY category only, at keeping the total safe life time limit of 3600 hours TIS.

A flight in ACROBATIC category is a flight during which acrobatic manoeuvres permitted in the Aircraft Log Book for ACROBATIC category are performed.

A flight in UTILITY category is a flight during which acrobatic manoeuvres permitted in the Aircraft Log Book for UTILITY category are performed.

Flight time is total time from the instant of aircraft first movement for the purpose of take-off to the instant when the aircraft finally stops in the end of that flight.

Aircraft operator is obliged to record flights performed in UTILITY category including pertinent flight time into the Aircraft Log Book.

Flights in UTILITY category are marked with U letter in the Aircraft Log Book.

Note:

Till this bulletin has been issued, it was prescribed to record flights performed in ACROBATIC and UTILITY category into Aircraft Log Book with symbol A.

4.2 Perform following works on the aircraft which have exceeded the limit of 190 hours TIS in ACROBATIC and/or UTILITY category:

- reconstruction of root wing part
- replacement of conic pins and bushings of main wing hinges
- replacement of pins of rear wing hinges

Further operation is possible in NORMAL category only up to the total safe life limit of 3600 hours TIS.

4.3 Mandatory replacements of airframe parts with limited safe life time:

Conic pins and bushings of main wing hinges	- on the aircraft which have reached less than 190 hours TIS in ACROBATIC and UTILITY category – replace at nearest “C” inspection or overhaul.
Pin of rear wing hinge	- on the aircraft which have reached more than 190 hours TIS in ACROBATIC and UTILITY category and on which these parts have not been replaced during reconstruction of wing root part – replace at that „B“ or “C” inspection (or 600 hours inspection or overhaul) which comes first of all.
Fitted bolts of upper outer and upper inner wing hinges	In case of loosening or failure of even one single fitted bolt, replacement of all 20 bolts on both parts of upper hinge shall be performed

4.1.4 Mandatory inspections of airframe parts:

Visual check of loosening or failure of fitted bolts of upper outer wing hinges (on upper side of the wing)	- At pre-flight inspection - After 100 hours TIS or after 1 year, depending on what comes earlier
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4.1.5 Cancel Mandatory Service Bulletin Z142C/17a.

4.1.6 Pertinent changes of aircraft accompanying documentation.

5. **ACCOMPLISHMENT:** Immediately after bulletin receipt.
6. **PERFORMED BY:** Operator (replacement of pages in accompanying documentation).
7. **COSTS COVERED BY:** Operator
8. **MATERIAL:** New pages of accompanying documentation – see Attachments.
9. **PROCEDURES:** Replace original pages of manuals by new pages.
Record change accomplishment into List of Changes.
10. **ENCLOSURE:** New pages of accompanying documentation:
- Maintenance Manual of the Z142C Aircraft, Vol. I – english version:
0-3; 0,4; 0-6; 3-6; 5-6; 9-1; 9-2; 9-3; 9-4
 - Maintenance Manual of the Z142C Aircraft, Vol. II – czech version:
0-3; 0-7; 3-10
 - Maintenance Manual of the Z142C Aircraft, Vol. II – english version:
0-3; 0-7; 3-11



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