Fiberglas-Technik Rudolf Lindner EASA AP.161

Technische Information TI-16 Service Letter SL-16 Grob Viking T69A Page 1 of 3 Edition 25.10.2022

TECHNISCHE INFORMATION TI-16 SERVICE LETTER SL-16

I. TECHNICAL DETAILS

1.1 Aircraft Affected

Viking T69A

(civil type designation Twin II Acro, as operated under military registration in the UK)

1.2 Subject:

Information on acceptable damages / deferrable defects.

1.3 Reason:

To provide guidance about which damages must be repaired and which damages are acceptable for flight (i.e. which defects or damages might be deferred to continue flight operations).

1.4 General Guidance:

Within this document, the maximum size or amount of damages and defects are described, which may be deferred / which are acceptable for flight operations. These are called hereafter "damage limits".

If the damage exceeds these limits, deferral or flight operations without repair of this damage is only recommended with the consent of a certifying staff / inspector / technician according to the appropriate riles and regulations under which the sailplane is operated

(e.g. Part-M within EU regulation 1321/2014 for civil operations within the EASA member states).

In all cases the pilot remains responsible to assure that the aircraft is airworthy and when in doubt, advice and/or a release to service by such a certifying staff should be looked for.

For some damages a "monitoring" is required. Such a monitoring requires visual inspection before daily flight operations as described in the flight manual. Known damages which are acceptable for flight should be marked thereby facilitating recognition of damage growth or appearance of new damages which would require additional inspection and/or advice and/or a release to service by certifying staff. Monitoring should always be used only as a temporary measure and the list of all monitored items need approval during the next annual inspection or 300 hours or 1000 take-off check.

When in doubt, repair the damage instead of just monitoring it.

Tap test should be carried out on all areas where it is suspected that the composite structure is damaged. If the sound in the suspected area is different to the sound of undamaged areas with the same structural construction near the area, then the damage needs further investigation. In such a case the gel coat should be removed to investigate if the composite structure below is damaged. If no damage is found in the composite structure, restore the gel coat. This investigation is typically completed with a release to service by certifying staff.

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1.5 List of damage limits:

Dents in the surface / the gel coat

- max. 30 mm in diameter and/or 1mm depth or any dent in the wing spar area
- any signs of cracks from the dent must have the gel coat removed and investigated

Chipping of the gel coat / of white surface paint

- max. 15 mm in diameter
- chips may be sealed with regarding surface paint / gel coat to prevent damage to the composite surface by UV radiation / humidity / etc.
- any exposed composite surface on the upper side due to chipped paint must be sealed with paint
- edges along chips may be blended by light sanding to prevent further chipping

Bubbles in the gel coat / surface paint

- max. 5 mm in diameter
- bubbles filled with liquid (test by punctuation or squeezing) are not acceptable for flights under freezing conditions
- complete removal of bubbles is typically only possible by re-finishing of the area, but reduction of size and amount of bubbles is often possible by storage in warm and dry conditions

Cracks in the gel coat / surface paint

- max. 100 mm in length
- max. 20 mm in length if emerging from corners (e.g. at the airbrake opening, corner at the ailerons)
- any crack exceeding these limits needs monitoring as described above (e.g. by marking the edges to facilitate recognition of any crack growth)

Damages in the surface

- any damage obviously exposing the composite structure or filler
- gel coat opening up (often coupled with excessive cracking or chipping)
- any noted colour change suggesting that the filler or composite structure becomes exposed
- random patterns of waviness / cracks indicating damages under the surface
- signs of impact
- · radial or star cracks (forming a full or partial circle or forming a star pattern)

Airbrake cap delamination

- max. 100 mm in length within a single delamination between the metal airbrake cap and the surface paint / gel coat
- · loss of surface paint / gel coat exceeding 30 mm in length
- any delamination these limits needs monitoring as described above (e.g. by marking the edges to facilitate recognition of any growth)

II. REMARKS

The information within this document does not supersede information or limitations given in the aircraft manuals (flight / maintenance / repair manuals).

This edition dated 25.10.2022 replaces the original edition dated 27.07.2015 due to renumbering this Service Letter from number SL-G013 to SL-16.

The technical content was not changed in this re-edition.

For questions and assistance please contact:

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Walpertshofen, den 25.10.2022

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