

Grob G115 Series Aeroplanes

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/GROB 115/12 and issues the following AD under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

AD/GROB 115/12
Amdt 1

Elevator Trim Tab

6/2000

Applicability: All Grob 115 aircraft which have not been modified in accordance with a scheme approved by the Authority.

Note 1: Aeronautical Engineers Australia Engineering Order EO4796/1 is an approved scheme for the purposes of this Directive.

Requirement: Clean the area around the Elevator Trim Tab Hinges including in the space between the Tab and Elevator.

Inspect using a x 10 magnifying glass around all Elevator Trim Tab hinges for cracking or debonding between the hinge tabs and the resin (See Figure 1). Not only the upper surface of the tab is to be examined, but close attention is to be paid to the junction between the sides/lower surface of the hinge flap and the forward edge of the elevator trim tab.

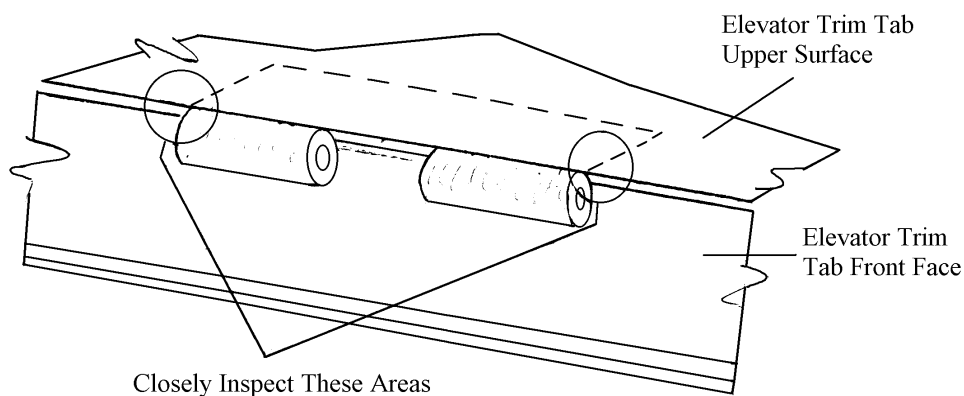


Figure 1
Elevator Trim Tab Hinge
Typical

Note: Elevator Removed
for Clarity

This AD may be carried out by a pilot. A copy of the AD is to be kept in the Flight Manual.

Note 2: The flap segment of the hinge attached to the trim tab runs under the upper surface of the tab.

Note 3: The debonding of the hinges appears as 'cracking' along the line joining the resin and hinge tabs. The growth rate of any cracking will be extremely fast. Further, the crack progression will not be uniform nor similar to fatigue cracking. Therefore, any cracking found is indicative that the entire hinge has debonded.

Note 4: This inspection may be carried out by the pilot provided that a copy of this AD is available to him and a LAME has provided him with full instruction on where, what and how to look for any cracking. The pilot should also be aware of the possible consequences of partial or total separation of the elevator trim tab.

Compliance: Before the first flight of every day.

If operations of the aircraft are such that more than 5 hours are flown during the day, the inspection is to be carried out every 5 hours flight time until the end of flying for that day.

This Amendment becomes effective on 15 June 2000.

Background: On return from a flight a trim tab was found nearly departed from an aircraft. Investigations found that the cause was bond failure between the hinges and the attaching resin. A further 6 tabs have since been found debonded, with one of the tabs having little more than 50 hrs TTIS. A loose trim tab can lead to flutter of the control surface. The manufacturer has been advised, and the initial issue of this AD was an interim solution pending development of a permanent solution.

Service experience with tabs which have been repaired/modified in accordance with the above scheme shows that it is effective in preventing this type of failure. This amendment excepts modified tabs from the requirement.

The initial issue of this Airworthiness Directive became effective on 6 May 1998.



Bernard Malcolm Hole
Delegate of the Civil Aviation Safety Authority
5 May 2000