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## AIRWORTHINESS DIRECTIVE

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On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001 (1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct an 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.

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### Aircraft - General

**AD/GENERAL/87**

### Primary Flight Control Cable Assembly Retirement

**2/2015**

**Applicability:** This AD applies to any aircraft fitted with primary flight control cable assemblies using terminals constructed of SAE-AISI 303 Se or SAE-AISI 304 stainless steel which have total time in service of, or exceeding, 15 years unless the:

- (a) aircraft is maintained to MSG-3 methodology; or
- (b) instructions for continuing airworthiness for the aircraft specifies a life limit for the primary flight control cable assemblies that is less than 15 years of total time in service and the instructions are complied with.

*Note: Affected terminals include, but are not limited to, terminals manufactured to MS20658 (AN658), MS20667 (AN667), MS20668 (AN668), MS21259 (AN666) and MS21260 (AN669 or NAS650), which may be stamped on the terminal.*

**Requirements:** For all aircraft:

- 1. Unless previously accomplished, remove each affected primary flight control cable assembly from service.
- 2. Ensure any affected cable assembly that has been removed from service is mutilated in a manner that ensures the cable assembly can no longer be used in an aircraft.

**Compliance:**

- 1. The action in Requirement 1 must be taken as follows:
  - (a) for primary flight control cable assemblies with total time in service of, or exceeding, 15 years - before 1 January 2018;
  - (b) for primary flight control assemblies where total time in service or control cable terminal material cannot be determined - the following applies:
    - (i) for aircraft manufactured in or before 2002, compliance must be achieved before 1 January 2018;
    - (ii) for aircraft manufactured in or after 2003, compliance must be achieved before the aircraft reaches 15 years since date of manufacture;

**Aircraft - General**

AD/GENERAL/87 (continued)

(c) once compliance with paragraph 1 (a) or paragraph 1 (b) has been achieved - every 15 years thereafter.

2. The action in Requirement 2 is required upon the completion of Requirement 1.

The effective date of this AD is 1 February 2015.

**Background:** There have been a number of reported cases in Australia and overseas of primary flight control cable terminals failing due to stress corrosion cracking. Inspection of primary flight control cable terminals can be difficult and problematic. Surface indication of stress corrosion cracking, such as corrosion pitting or cracking can be very difficult to see, even under 10X magnification and can sometimes emanate from within the sleeve of the terminal. Primary flight control cable terminal failure in flight may result in loss of aircraft control.

This AD has been issued to address the safety concern and feedback received in response to NPRM 1303MS.



Nick Ward  
Delegate of the Civil Aviation Safety Authority

13 January 2015