
AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/TAY/12 Amdt 5 and issues the following 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 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.

Rolls Royce Turbine Engines - Tay Series**AD/TAY/12 Low Pressure Compressor Ice Impact Panels 12/2007**
Amdt 6

Applicability: Tay 611-8, Tay 611-8C, Tay 620-15, Tay 650-15 and Tay 651-54 series engines with Low Pressure (LP) compressor ice impact panels of Rolls-Royce Deutschland (RRD) Service Bulletin (SB) TAY-72-1326 standard.

Note 1: These engines are known to be installed on, but not limited to, Boeing 727 series, Fokker F28 Mark 0070 and Mark 0100, and Gulfstream G-IV and GIV-X aircraft.

Requirement:

1. Repetitively inspect the low pressure compressor ice impact panels in accordance with the instructions of, RRD NMSB TAY-72-1638 Revision 3 or later approved revisions, or Non-Modification Service Bulletin (NMSB) TAY-72-1639 Revision 2 or later approved revisions, as applicable to engine model.
2. If more than one engine on an aircraft is equipped with epoxy bonded ice impact panels, rework the epoxy bonded ice impact panels on one engine using polysulphide bonding in accordance with RRD NMSB TAY-72-1638 Revision 3 or later approved revisions, or NMSB TAY-72-1639 Revision 2 or later approved revisions, as applicable to engine model.
3. Install modified ice impact panels with additional retention features and rework the LP Compressor case assembly in accordance with RRD SB TAY-72-A1643 Revision 1 or later approved revisions, or SB TAY-72-A1650 Revision 1 or later approved revisions, as applicable to engine model.

Note 2: The instructions for the repetitive inspection requirements for the Tay 611-8C engines are included in the Time Limits Manual Chapter 05-20-02.

After accomplishment of the modification as required by Requirement 3 of this AD, the repetitive inspections of Requirement 1 and the rework detailed in Requirement 2 are no longer required.

Note 3: EASA AD 2007-0258 dated 25 September 2007 refers.

Rolls Royce Turbine Engines - Tay Series

AD/TAY/12 Amdt 6 (continued)

- Compliance:
1. As per the intervals detailed in the applicable document or manual.
 2. Before further flight after the effective date of this AD, unless previously accomplished.
 3. No later than 31 December 2011.

This Amendment becomes effective on 22 November 2007.

Background: An event has occurred on a Tay 620-15/20 powered aircraft where all the Low Pressure (LP) compressor case ice impact panels of Rolls-Royce Service Bulletin TAY-72-1326 standard on both engines were released in flight. The released LP compressor case ice impact panels were caught in front of the fan outlet guide vanes, resulting in bypass duct blockage and significant thrust loss. The actions specified by this Airworthiness Directive are intended to make sure that the bonding of these LP compressor ice impact panels complies with the design intent.

Amendment 6 reflects that RRD has revised NMSB TAY-72-A1650 Revision 1 to introduce new production LP compressor cases for the Tay 611-8 engines to allow replacement of the complete LP compressor case instead of the ice impact panels only. This amendment adds a reference to the latest RRD Service Bulletin (SB) revision.

Amendment 5 included the TAY 611-8C engine.

Amendment 4 included a new replacement panel which has a new retention system and layer structure which is designed to prevent failure of the panel.

Amendment 3 updated the reference document to the last revision and changed the compliance period for some models of engine for replacement of the ice impact panels.

Amendment 2 updated the reference documents to reflect the latest revision.

Amendment 1 of this Directive superseded those requirements detailed in AD/TAY/10 Amdt 1 and AD/TAY/11.

Amendment 5 of this Directive became effective on 19 January 2006.

Amendment 4 of this Directive became effective on 27 October 2005.

Amendment 3 of this Directive became effective on 12 May 2005.

Amendment 2 of this Directive became effective on 23 December 2004.

Rolls Royce Turbine Engines - Tay Series

AD/TAY/12 Amdt 6 (continued)

Amendment 1 of this Directive became effective on 28 October 2004.

A handwritten signature in black ink, appearing to read 'David Punshon', written in a cursive style.

David Punshon
Delegate of the Civil Aviation Safety Authority

2 October 2007