AIRWORTHINESS DIRECTIVE

On the commencement date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below repeals Airworthiness Directive (AD) AD/BEECH 33/41 Amdt 5 and issues the following AD under subregulation 39.001 (1) of CASR and subsection 33 (3) of the *Acts Interpretation Act 1901*. 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.

Textron Aviation (Beechcraft) 33 and 35-33 (Debonair/Bonanza) Series Aeroplanes

AD/BEECH 33/41 Amdt 6

Wing Bolt, Nut and Fitting

12/2025

Applicability:

All models of Textron Aviation (formerly Beechcraft) 33 and 35-33 series aircraft, all serial numbers.

Requirement:

- 1. Remove inspection covers from wing attach fitting recesses and inspect for corrosion or loss of inhibitor. Also inspect drain holes for any blockage that would cause water or debris to accumulate.
- Note 1: It may be necessary to use a bright light and mirror/magnifying glass to see hard to view areas of the bolt or fittings for signs of corrosion on accessible areas of the bolt. Non accessible areas like the bolt thread encapsulated by the nut will be inhibited, so it is highly unlikely they will experience corrosion unless the general surrounding area is corroded.
- 2. Remove and inspect wing bolts, washers, nuts and fittings in accordance with Beechcraft Maintenance Manual 36-590001-9D Revision D2 May 29, 2024 Chapter 57, as in force on the date of commencement of this AD.
- Note 2: The bolt torque should be checked before removal for inspection or replacement to confirm the bolt has been torqued to correct value. If the torque value is incorrect, other maintenance action may be required.
- Note 3: Amendment 5 of this AD referred, and this Amendment also refers, to all serial numbers within its Applicability as the type certificate holder has not updated the Beechcraft Shop manual which includes other serial number ranges. The maintenance listed above at Requirement 2 is to be utilised for all serial numbers with reference to the wing bolt, nut and fitting requirements.
- 3. Retire wing bolts, washers and nuts from service and replace with new hardware in accordance Beechcraft Maintenance Manual 36-590001-9D Revision D2 May 29, 2024 Chapter 57, as in force on the date of commencement of this AD. Render unserviceable all hardware retired. Alternatively, as per the above aircraft maintenance manual the bolts may be maintained on condition IAW Table 201 Beechcraft Maintenance Manual 36-590001-9D Revision D2 May 29, 2024, Chapter 57, as in force on the date of commencement of this AD.

Compliance: For Requirement 1:

Every 12 calendar months for all aircraft. If visible corrosion is found within the recess or on visible portion of the bolt or nuts, washers or fittings, then Requirement 2 must be accomplished before further flight.

Textron Aviation (Beechcraft) 33 and 35-33 (Debonair/Bonanza) Series Aeroplanes

AD/BEECH 33/41 Amdt 6 (continued)

For Requirement 2:

- a. For aircraft operating only in private operations:
 - i. unless the inspection has already been accomplished in accordance with the Beechcraft 33 Maintenance Manual 33-590011-1 Revision C17 dated May 1, 1989, the Beechcraft Maintenance Manual 35-590096 Revision B22 dated 1 April 2011 or the Beechcraft Maintenance Manual 36-590001-9D Revision D2 dated May 29, 2024, each as in force on the date of commencement of this instrument (the *requirement documents*) within 10 years from the initial installation of the wing bolts inspect within 100 hours' time in service (TIS) or 12 months from the commencement date of this AD, whichever occurs first.

Note 4: Installation of the wing bolts includes where they are removed for inspection purposes and re-installed.

- ii. re-inspect at intervals not to exceed 10 years from the previous inspection.
- b. For all other operational categories:
 - in unless the inspection has already been accomplished in accordance with any of the requirement documents within 5 years from the installation of the wing bolts inspect within 100 hours' TIS or 12 months from the commencement date of this AD, whichever occurs first.

Note 5: Installation of the wing bolts includes where they are removed for inspection purposes and re-installed.

ii. re-inspect at intervals not to exceed 5 years from the previous inspection.

For Requirement 3:

Before 20 years TIS after the first installation of new zero time wing bolts. Alternatively, as per the maintenance manual the bolts may be maintained on condition IAW table 201 of the Beechcraft Maintenance Manual 36-590001-9D Revision D2 May 29, 2024, Chapter 57, as in force on the date of commencement of this AD.

Note 6: Always replace wing attach nuts with new items when removing the wing attach bolts for inspection.

Mandatory reporting requirements:

Both NIL findings of defects and confirmed defects for Requirement 2 inspection must be reported via CASA's Defect Reporting Service, either through the online portal at:

https://www.casa.gov.au/resources-and-education/our-systems/defect-report-service or by using Form 404 available from:

https://www.casa.gov.au/defect-report

Textron Aviation (Beechcraft) 33 and 35-33 (Debonair/Bonanza) Series Aeroplanes

AD/BEECH 33/41 Amdt 6 (continued)

Commencement date:

This AD commences on 13 July 2025.

Background:

The initial issue of this Airworthiness Directive became effective on 1 February 1996 and made mandatory the inspection and replacement periods for the wing attachment hardware as detailed in the requirement document.

Amendment 1 of this AD added the Note 1 to Requirement 2 and added the fittings as an item to be inspected when the wing bolts, washers and nuts are removed and inspected.

Amendment 2 of this AD removed the alternative means of compliance that had been issued to allow in-situ inspection of the wing attachment bolts and nuts rather than conduct the manufacturer's required MPI.

Amendment 3 of this AD was issued to extend the compliance time for Requirement 1 by two months whilst the proposed airworthiness directive process was conducted for AD/BEECH 33/41 Amdt 4.

Amendment 4 of this AD allowed for aircraft used in private operations to be visually inspected for corrosion in the exposed areas of the wing attach bolts and wing fitting recess with the inspection interval increased from 5 to 10 years, in lieu of using the manufacturer's maintenance instructions. For all other types of operations, the inspection requirements remained unchanged, requiring inspection of the wing attach hardware and fitting recess per the manufacturer's maintenance data.

Amendment 5 of this AD was issued following a change to the Instructions for Continued Airworthiness (ICA) by the type certificate holder, increasing the life limit of the wing bolts to 20 years and only requiring a removal and visual inspection at the five-year interval.

Amendment 6 of this AD follows the amendment of the Beechcraft Maintenance Manual 36-590001-9D allowing for the wing attach bolts to be maintained on condition following their 20 year in service life as an option to replacing the bolts.

David Punshon

Delegate of the Civil Aviation Safety Authority

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13 June 2025