
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (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.

Airtractor AT-300, 400 and 500 Series Aeroplanes

AD/AT/25

Vertical Fin Front Spar Fitting

7/2003

Applicability: Model AT-300, AT-400, and AT-400A aircraft equipped with a turbine powerplant, and retrofitted with a ¼-inch thick aluminium vertical fin front spar fitting and an all-metal rudder.

Model AT-401 and AT-401B aircraft, serial numbers 401-0737 through 401-1015, and 401B-0737 through 401B-1015; that have been converted to turbine powerplants.

Model AT-402, AT-402A, and AT-402B aircraft, serial numbers 402-0737 through 402B-1015.

Model AT-501 aircraft, serial number 501-0031 and subsequent, that have been converted to turbine powerplants.

Model AT-502 and AT-502B aircraft, serial numbers 502-0031 through 502B-0398.

- Requirement:**
1. Inspect the vertical fin front spar fitting for cracks in accordance with Snow Engineering Co. Service Letter (SL) No. 155, Revised 27 November 2002.
 2. If cracks are found during any inspection required by Requirement 1, replace the vertical fin front spar fitting in accordance with SL No. 155, Revised 27 November 2002.
 3. Modify the vertical fin front spar fitting by installing a steel doubler in accordance with SL No. 155, Revised 27 November 2002.

Note: FAA AD 2003-07-04, Amendment 39-13100 refers.

- Compliance:**
1. Upon accumulating 2,000 hours time in service on the vertical fin front spar or spar fitting, or within 100 hours time in service after 10 July 2003, whichever occurs later. If no cracks are found, inspect thereafter at intervals not to exceed 100 hours time in service; until Requirement 3 is accomplished.
 2. Before further flight.
 3. Within 2,000 hours time in service after 10 July 2003, unless already accomplished. The modification may be accomplished at any time prior provided the vertical fin front spar fitting is crack free.

Airtractor AT-300, 400 and 500 Series Aeroplanes

AD/AT/25 (continued)

This Airworthiness Directive becomes effective on 10 July 2003.

Background: The FAA had previously issued AD 97-14-05 to remove Air Tractor models with a ¼-inch thick vertical fin front spar fitting installed from the applicability of AD 95-20-06 (AD/AT/17 refers), due to reports indicating that only 3/16-inch fittings were affected. Recently a Model AT-502 aircraft was found with a cracked ¼-inch thick vertical fin front spar fitting. The crack was found during a routine inspection. The rear spar had not yet failed. This recent finding demonstrates that Air Tractor models with a ¼-inch thick vertical fin front spar fitting are subject to fatigue failure.



David Villiers
Delegate of the Civil Aviation Safety Authority

9 May 2003