
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 39.001(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.

Airtractor AT-300, 400 and 500 Series Aeroplanes**AD/AT/28****Upper Rudder Hinge****1/2007**

Applicability: Model AT-502 and 502B aircraft, serial numbers 502/502B-0003 through 502/502B-2600.

Model AT-502A aircraft, serial numbers 502A-0003 through 502A-2582.

- Requirement:
1. Visually inspect the rudder and vertical hinge attachment for loose fasteners; and inspect the rudder and vertical fin skins, spars, hinges, and brackets for cracks and/or corrosion, in accordance with Snow Engineering Co. Service Letter (SL) No. 247 dated 14 August 2005, revised 17 May 2006.
 2. If damage is detected during any inspection, replace any damaged parts with new parts, and install the external doubler at the upper rudder hinge, in accordance with SL No. 247 and Snow Engineering Co. Process Specification No. 145 dated 6 December 1991.
 3. Install the external doubler at the upper rudder hinge in accordance with SL No. 247 and Snow Engineering Co. Process Specification No. 145.

As of the effective date of this Directive, no rudder is to be installed unless the external doubler at the upper rudder hinge is incorporated.

Note 1: Installation of the external doubler at the upper rudder hinge is terminating action for the Requirement 1 inspection requirements.

Note 2: FAA AD 2006-23-14 Amdt 39-14826 refers.

- Compliance:
1. Unless the initial inspection is already accomplished, upon the accumulation of 3,500 hours time in service or within 100 hours time in service after 18 January 2007, whichever occurs later. Thereafter, inspect at intervals not to exceed 100 hours time in service.
 2. Before further flight.
 3. Upon the accumulation of 5,000 hours time in service or within 100 hours time in service after 18 January 2007, whichever occurs later; unless already accomplished.

This Airworthiness Directive becomes effective on 18 January 2007.

Airtractor AT-300, 400 and 500 Series Aeroplanes

AD/AT/28 (continued)

Background: The FAA received two reports of in-flight rudder separation from the vertical fin at the upper attach hinge area, and other reports of aircraft with loose hinges, skin cracks, or signs of repairs to the affected area. Hinge failure adversely affects ability to control yaw and has led to the rudder folding over in flight. This condition could allow the rudder to contact the elevator and affect ability to control pitch, with subsequent loss of control.



David Villiers
Delegate of the Civil Aviation Safety Authority

23 November 2006