

Piper PA-38 (Tomahawk) Series Aeroplanes

**AD/PA-38/17 Rudder Upper Hinge - Inspection and Replacement 2/81
Amdt 2**

Applicability: All models PA-38-112 with S/Nos. 38-78A0001 to 38-80A0099, 38-80A0113, 38-80A0120 and 38-80A0123 to 38-80A0165.

Requirement: To avoid possible flight hazards associated with a crack in the rudder upper hinge fitting accomplish the following:

1. Remove the rudder upper hinge pin and carefully displace the rudder from the fin aft to expose the surfaces of both rudder upper hinge brackets P/N 77610-02.
2. Visually inspect all the hinge surfaces in the area of the hinge pin hole to the forward edge of the hinge for cracks using at least a 10X lens, or an approved dye penetrant technique.
3. On re-installation of the upper hinge bolt, torque nut to 50-70 inch pounds (do not exceed maximum figure).
4. Replace the hinge brackets with steel brackets P/N 77610-03 in accordance with Piper SB No. 686.
5. Retire the steel hinge brackets P/N 77610-03 from service.

Note: Installation of steel hinge brackets P/N 77610-03 obviates the need for inspection in accordance with paras. 1 and 2.

Compliance: For Paras. 1, 2 & 3 - Initially inspect within 10 hours time in service after 6 June 1980 and thereafter at intervals not exceeding 50 hours time in service until modified in accordance with Piper SB No. 686.

For Para. 4 - Within 300 hours time in service after 4 July 1980.

For Para. 5 - Prior to the accumulation of 5000 hours component time in service.

Background: Reports have been received of cracks developing in the upper rudder hinge brackets. This Directive has been revised to reflect the content of the applicable FAA AD 80-22-13 Amdt. 39-3960.