



The New Piper Aircraft, Inc.  
2926 Piper Drive  
Vero Beach, Florida, U.S.A. 32960

# SERVICE No. 1160 BULLETIN

**PIPER CONSIDERS  
COMPLIANCE MANDATORY**

Date: December 26, 2005

(S)(M)

**SUBJECT:**

**STABILATOR TORQUE TUBE ASSEMBLY INSPECTION**

**MODELS AFFECTED:**

PA-23-235 Apache  
PA-23-250 Aztec (Navy UO-1)  
PA-E23-250 Aztec

PA-24 Comanche  
PA-24-250 Comanche  
PA-24-260 Comanche  
PA-24-400 Comanche  
PA-30 Twin Comanche  
PA-39 Twin Comanche C/R

**SERIAL NUMBERS AFFECTED:**

27-505 through 27-622  
27-1 through 27-4916 & 27-7304917 through 27-8154030  
27-2505 through 27-4916 & 27-7304917 through 27-7554168  
24-1 through 24-3687  
24-1; 24-103 through 24-3687  
24-3642 & 24-4000 through 24-5034  
26-2 through 26-148  
30-1 through 30-2000  
39-1 through 39-162

- COMPLIANCE TIME:** **Part 1** Inspection of the Stabilator Torque Tube Assembly (includes bolts, hardware and attached fittings), within the next one hundred (100) hours of operation, or at the next scheduled inspection whichever occurs first. Thereafter, the inspection is required every 10 years, or until superseded by requirements added to the Service Manual.
- Part 2** Replacement of corroded parts. Upon condition.

**APPROVAL:**

The technical content of this Service Bulletin has been shown to comply with the applicable Federal Aviation Regulations and is FAA approved.

**PURPOSE:**

- Part 1** Field reports of corrosion have been received of Stabilator Torque Tube assembly. Left uncorrected, this condition could cause distortion or failure of the torque tube, leading to possible loss of control of the aircraft.

NOTE: Part 1 of this Service Bulletin provides for inspection of the torque tube assembly and replacement where necessary.

- Part 2** To provide corrective action if corrosion is found.

(OVER)

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**INSTRUCTIONS:**

Following is a list of Aircraft Models, Torque Tube Assemblies and Serial Numbers affected by this Service Bulletin:

| MODEL                     | TORQUE<br>TUBE<br>PART<br>NUMBER | SERIAL NUMBERS<br>AFFECTED                         | TUBE<br>MINIMUM<br>OUTSIDE<br>DIA | TUBE<br>MINIMUM<br>WALL<br>THICKNESS |
|---------------------------|----------------------------------|--|-----------------------------------|--------------------------------------|
| PA-23-235 Apache          | 16067-00                         | 27-505 to 27-622                                   | 2.3113                            | .161                                 |
| PA-23-250 Aztec           | 16067-00                         | 27-1 to 27-504                                     | 2.3113                            | .161                                 |
| PA-23-250 (6 place) Aztec | 16067-00                         | 27-2000 to 27-8154030                              | 2.3113                            | .161                                 |
| PA-E23-250 Aztec          | 16067-00                         | 27-2505 to 27-4916 and<br>27-7304917 to 27-7554168 | 2.3113                            | .161                                 |
| PA-24 Comanche            | 20203-00                         | 24-1 to 24-102                                     | 2.3113                            | .105                                 |
| PA-24 Comanche            | 20203-03                         | 24-103 to 24-3687                                  | 2.3113                            | .105                                 |
| PA-24-250 Comanche        | 20203-00                         | 24-1 to 24-102                                     | 2.3113                            | .105                                 |
| PA-24-250 Comanche        | 20203-03                         | 24-103 to 24-3687                                  | 2.3113                            | .105                                 |
| PA-24-260 Comanche        | 20203-03                         | 24-3642 to 24-5028                                 | 2.3113                            | .105                                 |
| PA-24-400 Comanche        | 22655-00                         | 26-2 to 26-148                                     | 2.3113                            | .161                                 |
| PA-30 Twin Comanche       | 22655-09                         | 30-2 to 30-2000                                    | 2.3113                            | .161                                 |
| PA-39 Twin Comanche       | 27183-00                         | 39-1 to 39-155                                     | 2.3113                            | .161                                 |

**Part 1**

1. Gain access to the Stabilator Torque Tube Assembly by removing the aft fairing, aft fuselage access panel and stabilator halves, using procedures outlined in the appropriate chapters of the Service Manual.
2. Check for corrosion on the inside and outside surface of the torque tube and the condition of the bolts on the inside of the torque tube.
3. Check condition of bearings, bearing blocks and attach fittings inside the fuselage.
4. Check condition of balance weight tube attachment fitting and control horn.
5. If no corrosion is found, lubricate the torque tube per the appropriate aircraft Service Manual and re-install the stabilator halves, fuselage fairings, and aft fuselage access panel per the appropriate chapters in the Service Manual.
6. Make a logbook entry indicating compliance with Part 1 of this Service Bulletin.

**Part 2.**

1. If surface corrosion or wear is found other than on the torque tube itself, order replacement parts through your New Piper Aircraft Inc. authorized dealer, or repair per Chapter 6 of FAA document AC43.13-1B (Aircraft Inspection and Repair Manual). If surface corrosion is found on the stabilator torque tube, removal of corrosion is permitted only to the extent noted above (minimum outside diameter and minimum wall thickness). Where cadmium plating has been removed from the outside of the torque tube, apply a brush coat of cadmium plate per MIL-STD-865. Where paint has been removed from the inside of the torque tube, apply 2 swab coats of epoxy primer. Treat all other reworked items with Dinitrol AV8 or CRC Protector 100 Corrosion Inhibitor.
2. If repair is accomplished by corrosion removal, make a logbook annotation indicating compliance with Part 2 of this Service Bulletin. For torque tubes, which cannot be cleaned up within the noted limits, replace with the kits noted in Table 1.

NOTE: It is important that the corroded stabilator torque tube must be destroyed to prevent possible inadvertent future installation on an aircraft.

**TABLE 1**

| MODEL                     | KIT<br>PART<br>NUMBER | SERIAL NUMBERS AFFECTED                         |
|---------------------------|-----------------------|---|
| PA-23-235 Apache          | 652-579               | 27-505 to 27-622                                |
| PA-23-250 Aztec           | 652-579               | 27-1 to 27-504                                  |
| PA-23-250 (6 place) Aztec | 652-579               | 27-2000 to 27-8154030                           |
| PA-E23-250 Aztec          | 652-579               | 27-2505 to 27-4916 and 27-7304917 to 27-7554168 |
| PA-24 Comanche            | 652-580               | 24-1 to 24-102                                  |
| PA-24 Comanche            | 652-580               | 24-103 to 24-3687                               |
| PA-24-250 Comanche        | 652-580               | 24-1 to 24-102                                  |
| PA-24-250 Comanche        | 652-580               | 24-103 to 24-3687                               |
| PA-24-260 Comanche        | 652-580               | 24-3642 to 24-5028                              |
| PA-24-400 Comanche        | 652-581               | 26-2 to 26-148                                  |
| PA-30 Twin Comanche       | 652-582               | 30-2 to 30-2000                                 |
| PA-39 Twin Comanche       | 652-583               | 39-1 to 39-155                                  |

**MATERIAL REQUIRED:** One (1) each kit from Table 1, if required, per aircraft.

**AVAILABILITY OF PARTS:** Your Piper Service Facility.

**EFFECTIVITY DATE:** This Service Bulletin is effective upon receipt.

**SUMMARY:** There is no factory participation for this Service Bulletin.

Please contact your Factory Authorized Piper Service Facility to make arrangements for compliance with this Service Bulletin in accordance with the compliance time indicated.

**NOTE:** If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify the factory of address/ownership corrections. Changes should include aircraft model, serial number, current owner's name and address.

Corrections and/or changes should be directed to:

THE NEW PIPER AIRCRAFT, INC.  
Attn: Customer Service  
2926 Piper Drive  
Vero Beach, FL 32960