



Piper Aircraft, Inc.  
2926 Piper Drive  
Vero Beach, FL, U.S.A. 32960

# SERVICE NO. 1160A BULLETIN

## PIPER CONSIDERS COMPLIANCE MANDATORY

Date: November 28, 2022

(S) (M)

Service Bulletin (SB) 1160A supersedes SB 1160 in its entirety. Aircraft that were previously made compliant with SB 1160 are in compliance with SB 1160A.

**SUBJECT:**

**STABILATOR TORQUE TUBE ASSEMBLY  
INSPECTION**

**REASON FOR REVISION:**

SB 1160A clarifies the dimensions and instructions for inspection, replacement, and repair of the stabilator torque tube assembly.

**MODELS AFFECTED:**

PA-23-250 Aztec  
PA-23-235 Apache  
PA-23-250 (6 Place) Aztec  
  
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:**

27-1 through 27-504  
27-505 through 27-622  
27-2000 through 27-4866,  
27-7304917 through 27-8154030  
27-2505 through 27-4916,  
27-7304917 through 27-7554168  
24-1 through 24-3641, 24-3643 thru 24-3687  
24-103 thru 24-3641, 24-3643 through 24-3687  
24-3642, 24-4000 through 24-5034  
26-2 through 26-148  
30-2 through 30-2000  
39-1 through 39-162

**COMPLIANCE TIME:**

**Part I. Inspection**

Inspect the stabilator torque tube assembly (including bolts, hardware and attached fittings), within the next 100 hours of operation, or at the next scheduled inspection, whichever occurs first. Thereafter, a recurring inspection is required each 10 years, or until superseded by requirements added to the applicable Piper Service Manual.

**Part II. Replacement / Repair**

Upon condition, replace or repair corroded parts.

**APPROVAL:**

The engineering aspects of this service document have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved.

**PURPOSE:****Part I. Inspection**

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. Part I of this service bulletin provides for inspection of the torque tube assembly and replacement where necessary.

**Part II. Replacement / Repair** To provide corrective action if corrosion is found.

**INSTRUCTIONS:**

**NOTE:** Table 1 lists the aircraft models, serial numbers, torque tube assemblies, and kits applicable to this service bulletin.

**Part I. Inspection**

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 appropriate Service Manual (SM).
2. Check for corrosion and condition.
  - a. 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.
  - b. Check condition of bearings, bearing blocks, and attach fittings inside the fuselage.
  - c. Check condition of balance weight tube attachment fitting and control horn.
3. If corrosion is discovered, proceed to Part II. If no corrosion is discovered, lubricate the torque tube per the appropriate chapter of the SM.
4. Install the stabilator halves, fuselage fairings, and aft fuselage access panel per the appropriate chapters of the SM.
5. Make a logbook entry documenting compliance with Part I of this service bulletin.

**Part II. Replacement / Repair**

1. If surface corrosion or wear is found on parts other than the torque tube, order the appropriate service parts through your Piper Aircraft Inc. authorized dealer or repair parts per Chapter 6 of FAA document AC43.13-1B (Aircraft Inspection and Repair Manual).
2. If corrosion is discovered on the torque tube, repair or replace accordingly.
  - a. Removal of surface corrosion is permitted, provided that the minimum dimensions listed in Table 2 are retained after corrosion is removed. If the minimum dimensions without cadmium plating cannot be retained after removing the corrosion, replace the torque tube by installing the appropriate kit listed in Table 1.

**CAUTION:** REMOVAL OF CADMIUM PLATING REQUIRES ALL APPROPRIATE PPE.

- b. If the cadmium plating has been removed from part or all of the outside of the torque tube, apply a brush coat of cadmium plate per MIL-STD-865. After applying cadmium plating, verify the torque tube meets the minimum dimensions with cadmium plating as listed in Table 2.
    - c. Where paint has been removed from the inside of the torque tube, apply 2 swab coats of acceptable fluid resistant epoxy primer AkzoNobel Aerospace Coatings, Vendor Product Numbers 10P30-5 / TR-115 / EC-275. Treat all other reworked items with Ardrex AV8 (formerly Dinitrol).
3. Install the stabilator halves, fuselage fairings, and aft fuselage access panel per the appropriate chapters in the SM.
4. Make a logbook entry documenting compliance with Part II of this service bulletin.

**WARNING:** IT IS IMPORTANT THAT ANY CORRODED STABILATOR TORQUE TUBE BEING DISCARDED IS DESTROYED TO PREVENT POSSIBLE INADVERTENT FUTURE INSTALLATION ON AN AIRCRAFT.

**Table 1**  
AFFECTED TORQUE TUBES

Model	Serial Numbers Affected	Original Torque Tube Part Number	Replacement Kit Part Number <sup>(1)</sup>
PA-23-235 Apache	27-505 through 27-622	16067-002	652-579
PA-23-250 Aztec	27-1 through 27-504		
PA-23-250 (6 Place) Aztec	27-2000 through 27-8154030		
PA-E23-250 Aztec	27-2505 through 27-4916, 27-7304917 through 27-7554168		
PA-24 Comanche	24-1 through 24-3641, 24-3642 through 24-3687	20203-002	652-580
PA-24-250 Comanche	24-103 thru 24-3641, 24-3643 thru 24-3687		
PA-24-260 Comanche	24-3642, 24-4000 through 24-5034		
PA-24-400 Comanche	26-2 through 26-148	22655-002	652-581
PA-30 Twin Comanche	30-2 through 30-2000	22655-006	652-582
PA-39 Twin Comanche	39-1 through 39-162	27183-002	652-583

(1) Verify replacement kit come with instructions 88372 rev. H or later.

**Table 2**  
TORQUE TUBE DIMENSIONS

<b>KIT TUBE WITHOUT CADMIUM PLATING</b>	<b>KIT TUBE WITH CADMIUM PLATING</b>
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Original Torque Tube Part Number	Tube Minimum Outside Diameter		Tube Minimum Wall Thickness	Tube Minimum Outside Diameter	
	Bearing Mating Points	Rest of Torque Tube		Bearing Mating Points	Rest of Torque Tube
16067-002	2.3114-2.3124	2.3000-2.3100	0.161	2.3120-2.3130	Less than 2.3120
20203-002	2.3114-2.3124	2.3000-2.3100	0.161	2.3120-2.3130	Less than 2.3120
22655-002	2.3114-2.3124	2.3000-2.3100	0.161	2.3120-2.3130	Less than 2.3120
22655-006	2.3114-2.3124	2.3000-2.3100	0.161	2.3120-2.3130	Less than 2.3120
27183-002	2.3114-2.3124	2.3000-2.3100	0.161	2.3120-2.3130	Less than 2.3120

**MATERIAL REQUIRED:** One (1) each, on condition, applicable kit from Table 1, per aircraft.

**AVAILABILITY OF PARTS:** Your Piper Approved Service Center

**EFFECTIVITY DATE:** This service bulletin is effective upon receipt.

**SUMMARY:** Please contact your Piper Approved Service Center to make arrangements for compliance with this service bulletin in accordance with the compliance time indicated.

NOTE: Please notify the factory of any address/ownership corrections. Changes should include aircraft model, serial number, and current owner's name and address.

Corrections and/or changes should be directed to:

PIPER AIRCRAFT, INC.

Attn: Customer Service

2926 Piper Drive

Vero Beach, FL 32960

or:

CustomerService@piper.com

Please include in subject line: "Aircraft ownership update"