



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

# SERVICE No. 1103B BULLETIN

**PIPER CONSIDERS  
 COMPLIANCE MANDATORY**

Date: November 25, 2003 (S)

Service Bulletin 1103B adds the requirement of inspecting the nose gear actuator mounting bolt to ensure sufficient thread engagement with the lock nut after the engine mount has been replaced. This inspection and bolt replacement is only required if the engine mount was found cracked and is being replaced or has been replaced with the engine mounts listed in Table 1 for your aircraft.

<b><u>SUBJECT:</u></b>	<b>ENGINE MOUNT INSPECTION</b>
<b><u>MODELS AFFECTED:</u></b>	<b><u>SERIAL NUMBERS AFFECTED:</u></b>
PA-46-310P Malibu	46-8408001 through 46-8408087, 46-8508001 through 46-8508109, 46-8608001 through 46-8608067, and 4608001 through 4608140
PA-46-350P Mirage	4622003 through 4622200 4636001 through 4636319
PA-46-500TP Meridian	4697001 through 4697071; 4697075 through 4697096; 4697100; 4697101; 4697103 through 4697112; 4697114 and 4697116

**COMPLIANCE TIME:** PART I INSPECTION: To coincide with the next regularly scheduled maintenance event, and each one hundred (100) hours time in service or annual inspection, whichever occurs first, thereafter or until PART II of this Service Bulletin is accomplished.

PART II REPLACEMENT: If cracks are found during the Inspection in PART I, replace cracked engine mount. *Note: Compliance with PART II of this Service Bulletin will relieve the repetitive inspection requirements of PART I of this Service Bulletin.*

**APPROVAL:** The alteration as specified in the instructions section has been shown to comply with the applicable Federal Aviation Regulations and is FAA approved.

**PURPOSE:** It has been determined that cracks may develop on the engine mount in the area of the nose gear actuator attach feet (see Figure 1A). This condition typically occurs when the nose landing gear is subjected to excessive loads, possibly through hard landings, rough field operations, excessive speed turns and/or improper towing of the aircraft.

PART I of this Service Bulletin requires a repetitive inspection of the engine mount.

PART II of this Service Bulletin requires replacement of the engine mount.

(OVER)

ATA: 7121

PART I

**INSTRUCTIONS:**

1. Clean the engine mount actuator attach feet area.
2. Remove the paint or Dinitrol AV8, if the paint was previously removed and covered with Dinitrol AV8, from the feet (ref. Figure 1A).
3. Visually inspect the engine mount actuator attach feet for cracks.
4. Perform a 'liquid penetrant inspection' of the engine mount actuator attach feet for cracks per AC 43.13-1B, Chapter 5, Section 5.
5. If a crack appears in either of the actuator attach feet, the engine mount must be replaced before further flight. The installation of the appropriate engine mounts (see Table 1 on Page 2), with the one (1) piece feet (see Figure 3) constitute compliance with PART I and PART II of this Service Bulletin.
6. If no cracks are found, continue with repetitive one hundred (100) hours time in service inspection per the compliance time above.
7. Clean the feet and apply Dinitrol AV8, Piper P/N 89500-800, to the area where paint was removed.

*NOTE: Compliance with PART II at any time will relieve the repetitive inspection requirement of PART I.*

8. Make an appropriate logbook entry of compliance with this Service Bulletin for each repetitive inspection.

PART II

1. If cracks are found on the engine mount, replace with the engine mount listed in Table 1 for the applicable aircraft type. Insure the new engine mount has the one (1) piece feet (see Figure 3). The old engine mount (see Figure 2) has a two (2) piece welded foot. This welded area is where the crack's in the engine mounts have been found. Replace engine mount per the Aircraft Maintenance Manual, Chapter 71-00-00.

NOTE: When installing the new engine mount, pay close attention to the nose gear actuator connecting hardware to ensure the correct locknut is used (New Piper part number 404-891, MS 20365-720C). Additionally, check for proper thread engagement between the bolt and nut by ensuring at least one thread of the bolt protrudes through the nut, per AC43-13B, Chapter 7, Section 3, paragraph 7-37. If there are not sufficient threads exposed after the lock nut, replace the bolt with a longer bolt, New Piper part number 401-509 (AN7-15A). Torque to the standard torque value called in the Maintenance Manual, Chapter 91-10-00, for a 7/16-20 AN7 bolt/MS 20365 nut.

NOTE: As the engine may have been removed for a number of reasons, it is the responsibility of the installation agent to assure the proper re-installation, functional checks and operational suitability of the engine prior to returning the aircraft to service. Refer to the applicable engine manufacturers maintenance manuals as well as the Piper Maintenance Manual in the appropriate chapters as required.

2. Make an appropriate logbook entry of compliance of PART II with this Service Bulletin.

<u>Aircraft Type</u>	<u>Engine Mount P/N</u>
PA 46-310P	84010-002
PA 46-350P	89137-041
PA 46-500TP	102460-002

TABLE 1

**MATERIAL REQUIRED:** One (1) each, Engine Mount, for  
PA 46-310P P/N 84010-002,  
PA 46-350P P/N 89137-041,  
PA 46-500TP P/N 102460-002, and  
Bolt, New Piper part number 401-509 (AN7-15A),  
Nut, New Piper part number 404-891 (MS 20365-720C), &  
Dinitrol AV8, Piper P/N 89500-800, if required, per aircraft.

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

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

**SUMMARY:** Applicable Factory Participation for this Service Bulletin has been extended for the course of ***original ownership***, even if the aircraft passed the normal Piper Limited Warranty period. Therefore, should the engine mount crack, the replacement will be considered under warranty as long as the ***original owner*** owns the aircraft. This revision, refers only to the replacement of cracked engine mounts and does not include the cost of the inspection for those aircraft outside the normal aircraft warranty.

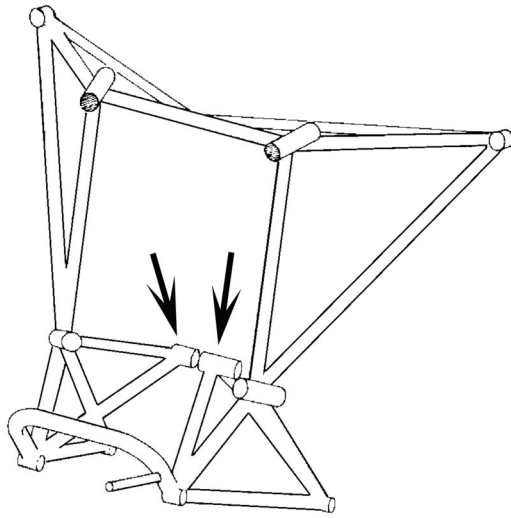
Any aircraft still under Factory Participation has the normal new aircraft warranty replacement period of time not to exceed 180 days from the date of this Service Bulletin.

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

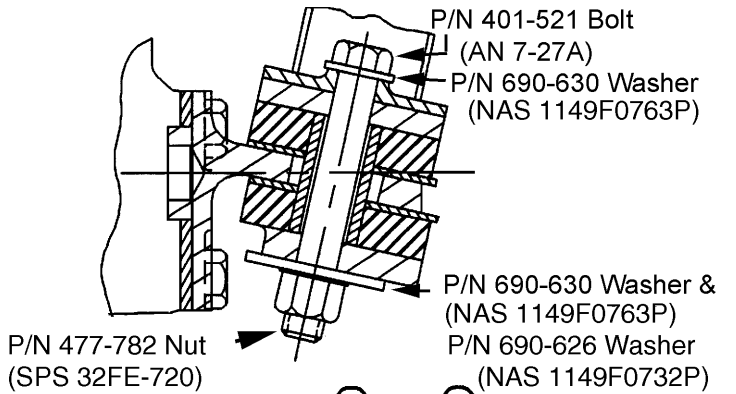
**NOTE:** If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify the factory of address/ownership corrections. Changes should include aircraft model, serial number, current owner's name and address.

Corrections/changes should be directed to:

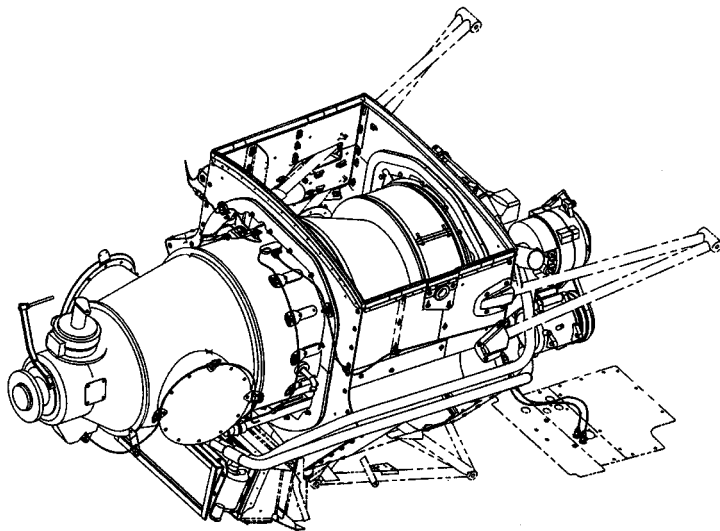
THE NEW PIPER AIRCRAFT, INC.  
Attn: Customer care  
2926 Piper Drive  
Vero Beach, FL 32960



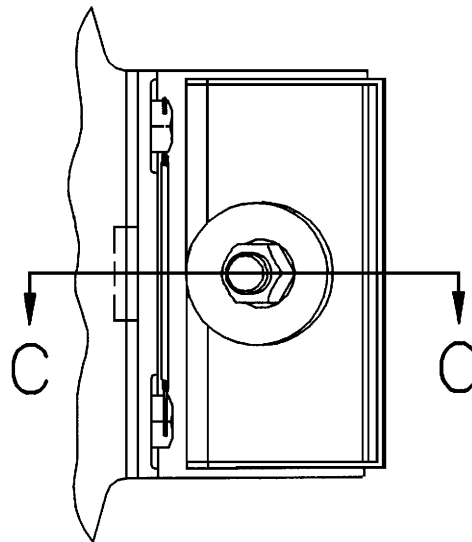
**(PA-46-310/350P)**  
**Typical Engine Mount**  
**(Arrows indicate Engine Mount Actuator Attach Feet)**  
**Figure 1A**



**SECTION C—C**  
**TYPICAL 4 PLACES**



**(PA-46-500TP)**  
**Typical Engine in the Mount**  
**Figure 1B**



**TYPICAL 4 PLACES**

**(PA-46-500TP)**  
**Engine Vibration Isolation Installation**  
**Figure 1C**

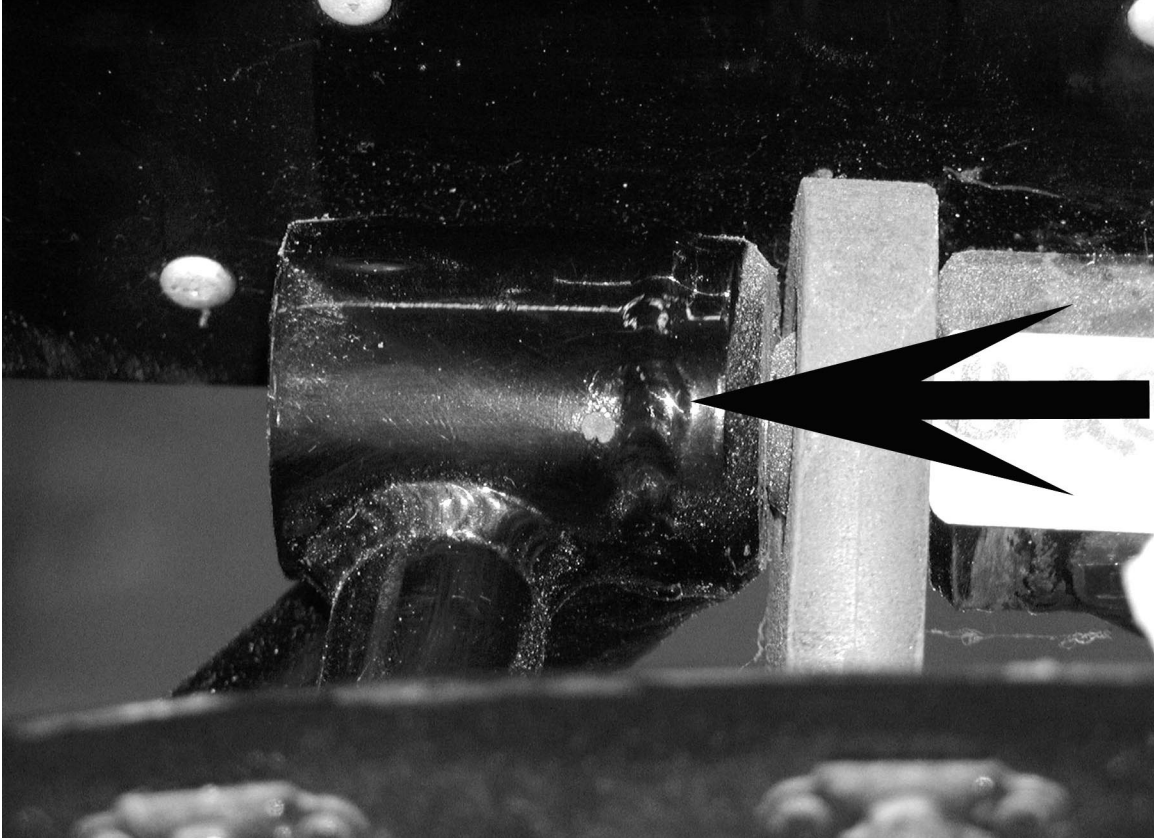


Figure 2  
Old Engine Mount  
Weld Indicates Two (2) Piece Foot

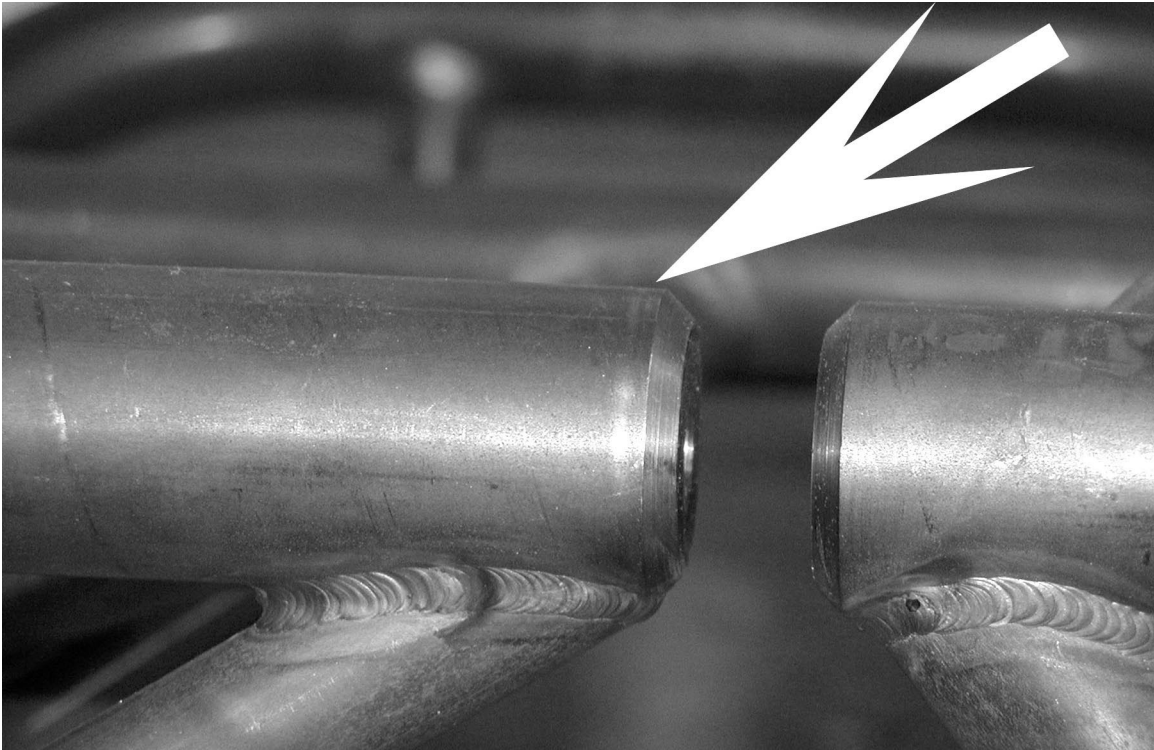


Figure 3  
New Engine Mount  
No Weld - One (1) Piece Foot