

United States of America
 Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SA02410AT

PMA Products, Inc.
 6120 Smithwood Rd.
 Liberty, NC 27298

This certificate issued to
 certify that the design of the type change for the following product meets the provisions and conditions thereof as prescribed herein under the administrative requirements of Part 3 of the Civil Air Regulations

Original Product - Type Certificate Number: Sec continuation sheet 2 of 2
 Model: The New Piper Aircraft, Inc.
 Affected: Sec continuation sheet 2 of 2

Description of Type Change: Replace existing Auxiliary Electric Standby Fuel Pump with PMA Products, Inc. P/N CA35328-R000; Fuel Pump per PMA Products, Inc. Drawing CA35328-R000, Rev. Orig. dated 8-8-01, or later FAA approved revision. Installation Instructions and Instructions for Continued Airworthiness are provided by PMA Products, Inc. Document CA35328-R000; MAINT. Rev. IR, dated 9-20-01 or later FAA approved revision. See Sheet 2 for specific installation eligibility.

Conditions and Exemptions: This approval should not be extended to other aircraft of its model on which other previously approved modifications are incorporated, unless it is determined by the installer that the interrelationship between this change and any other previously approved modifications will produce no adverse effect upon the airworthiness of that airplane. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data used in the basis for approval shall remain in effect unless and until suspended, annulled or a revocation date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: August 07, 2001

Date of issuance: October 10, 2001

State issued:
 State amended:

Signature of the Administrator

John D. McElroy
 (Signature)

Kevin D. Taylor
 Manager
 Atlanta Aircraft Certification Office



United States of America
 Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate
 (Continuation Sheet)

Number SA02410AT
 Date of Issuance: October 10, 2001

Original Product:
 Type Certificate: 1A10
 Model: PA23, PA23-160
 PA23-235, PA23-250, PA23-250(6 place); s/n 27-1 through 27-2504 (14v)
 Type Certificate: 1A15
 Model: PA24, PA24-250
 PA24-260; s/n 24-3642, 24-4000 through 24-4782, 24-4784 through 24-4803
 Type Certificate: 2A13
 Model: PA28-140, PA28-150, PA28-160, PA28-180
 PA28-151, PA28-161 (14v)
 PA28-181; s/n 28-7690001 through 28-7990626, 28-8090001 and up (14v)
 Type Certificate: A1850
 Model: PA-38-112

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PARTS MANUFACTURER APPROVAL NO. PQ1146CE

PRODUCTION APPROVAL LISTING - SUPPLEMENT NO. 72

DATED December 26, 2001

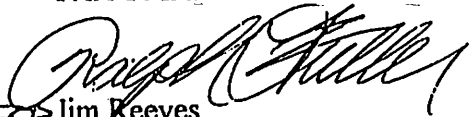
FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL

PMA Products, Inc.
6120 Smithwood Road
Liberty, NC 27298

<u>Part Name</u>	<u>Part Number</u>	<u>Approved Replacement for</u>	<u>FAA Approval Basis & Approved Design Data</u>	<u>Installation Eligibility</u>	<u>Model</u>
Fuel Pump	CA35328-800E	Modification Part	14 CFR FAR Part 21.303(c)(4); STC SA02410A dated 10-10-01; Drawing CA35328-800E rev. 1, dated 11-19-01-01 or later FAA approval.	The New Piper Aircraft, Inc.	PA23, PA23-160, PA-235, PA23-250, PA23-250 (6place); s/n 27-1 through 27-2504 (14v) and PA24, PA24-250, PA24-260; s/n 24-3642, 24-4000 through 24-4782, 24-4784 through 24-4803 and PA28-140, PA28-150, PA28-160, PA28-180, PA28-151, PA28-161 (14v), PA-181; s/n 28-7690001 through 28-7990626, 28-8090001 and up (14v) and PA-38-112.

-END OF LISTING-

NOTE: Minor design changes (reference 14 CFR 21 ss 21.93 and 21.95) must be submitted in a manner as determined by the ACO. Major design changes (reference 14 CFR Part 21 §§ 21.93 and 21.97) to drawings and specifications are to be handled in the same manner as that for an original FAA-PMA.


 Jim Keeves
 Manager, Atlanta Manufacturing
 Inspection District Office

class
162.0

**CA35328-800E Fuel Boost Pump, Removal, Installation,
and Instructions for Continued Airworthiness**

Document No. CA35328-800E-MAINT

Rev. IR, Dated: 9-20-01

IMPORTANT NOTE: THIS IS A NEW STYLE SOLID STATE FUEL PUMP. WHILE MOST MAINTENANCE INFORMATION FOUND IN THE APPLICABLE PIPER AIRCRAFT MAINTENANCE MANUALS APPLIES TO THIS PUMP, THE MAJOR EXCEPTION IS THAT THIS PUMP CANNOT BE ELECTRICALLY CHECKED USING AN OHMMETER PER THE PIPER INFORMATION. PIPER SPECIFICATIONS FOR RESISTANCE CHECKS DO NOT APPLY.

REMOVAL:

- 1) Make sure that the aircraft battery and boost pump switches are "off".
- 2) Turn off the fuel supply at the selector and remove the cowlings.
- 3) Disconnect the fuel pump electrical lead and both fuel lines.
- 4) Remove the nuts and bolts securing the pump to its mounting bracket and remove the pump.

INSTALLATION:

- 1) If the pump being installed is different from the pump that was removed, remove the fittings from the old pump, noting their respective positions if different from each other. Clean and inspect the fittings and, if serviceable, install in the new pump in the proper positions, using appropriate thread sealant and tighten to 60-70 in/lb.
- 2) Position the pump to the mount bracket and secure with bolts, washers, and nuts.
- 3) Connect the electrical lead and fuel lines to the pump.
- 4) Turn the fuel "on", and turn on the battery and fuel pump switch. Check to be sure there is no fuel leakage and for proper operation.
- 5) Reinstall all previously removed cowling.
- 6) Complete log entry.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS:

Routine Filter Cleaning: Once each 100 hours or 12 months, turn off the fuel supply and gain access to the fuel pump. Cut the safety wire and remove the bottom cover, gasket, magnet, and filter screen from the pump. **Note:** If the screen does not come out easily, use caution removing it from the pump housing so as not to damage it. Clean the cover and filter with acetone or a suitable dry type solvent.

Caution:

Solvents are flammable and harmful to the skin. Avoid sparks or open flame and wear rubber gloves and eye protection. Blow off excess solvent and inspect cover, gasket, and filter. If no damage exists, reinstall filter, gasket, and cover and safety wire. Turn on fuel supply. Operate pump and check for leakage and normal operation. Return the aircraft to service.

Cleaning for Possible Contamination: Should the pump become contaminated from dirty fuel, further disassembly and cleaning can be accomplished. Remove the cover and filter as above. Referring to the figure below, remove the retainer spring from the plunger tube using thin nose pickers to spread and remove the ends of the retainer from the tube. Remove the washer, "o" ring seal, cup valve, and plunger assembly from the pump.

Caution:

Do not remove the buffer spring and valve from the plunger assembly.

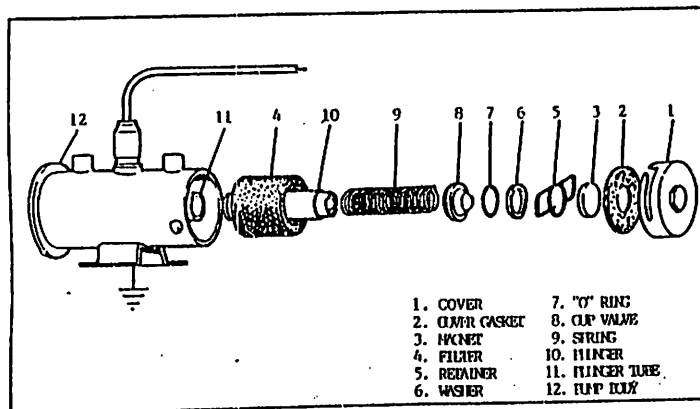
Do not tamper with the seal at the center of the mounting bracket at the side of the pump as it retains the dry gas which surrounds the electric components on the upper portion of the pump.

Clean all parts per above using the same Caution. If the plunger assembly does not come clean or there are any rough spots, polish gently with crocus cloth. Inspect for the following:

- Check the filter screen for damage or distortion.
- Gently touch the cup valve and check for freedom of movement. **Do not disassemble.**
- Shake the plunger assembly and listen for clicks to indicate valve action.
- Check the condition of the "o" ring.
- Check the condition of the cover gasket and plunger spring cup gasket.

Parts replacement is limited to the cover gasket and filter. Any other damaged parts require pump replacement.

Reassemble the parts as follows: insert the plunger assembly (10) in the tube with the buffer spring end first. Install other components in the following order: cup valve, "o" ring seal, and then washer. Install the retainer spring securing the components inside the pump housing. Reinstall filter and cover with the gasket and magnet in place. Safety wire cover. Reinstall pump per above "Installation" instructions.



MEMORANDUM FOR THE RECORD

DATE: 10/15/54

1. On 10/15/54, the following information was received from the [redacted] regarding the [redacted] of the [redacted] in the [redacted] area.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

It is noted that the [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

The [redacted] was [redacted] by [redacted] and [redacted] on [redacted] at [redacted] hours.

