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U.S. Department of Transportation

Federal Aviation Administration

Memorandum

Subject: **ACTION:** Equivalent Level of Safety, The New Piper Aircraft, Inc. Model PA-34-220T (V), FAR Part 23.1305(b)(4), Powerplant Instruments; Finding No. ACE-96-01

Date: March 8, 1996

From: Manager, Standards Office, ACE-110

Reply to
Attn. of: Morfitt

(816) 426-6932

To: Manager, Small Airplane Directorate
Aircraft Certification Service, ACE-100

This Memorandum is to document concurrence with an equivalent level safety to the requirement for a fuel pressure indicator for each pump fed engine specified in FAR 23.1305(b)(4).

Background: See attached Issue Paper P1-3.

Applicable Regulations: Federal Aviation Regulation (FAR) Section 23.1305(b)(4).

Applicant's Position: See attached Issue Paper P1-3.

FAA's Position: See attached Issue Paper P1-3.

Compensating Features: See attached Issue Paper P1-3.

Recommendation: We concur with Piper's position as stated in Issue Paper P1-3. The installation of fuel flow indicators in lieu of fuel pressure indicators provides an equivalent level safety to the requirements of FAR Section 23.1305(b)(4).

Concurred by:

for Larry Malin
Manager, Standards Office, ACE-110

3/8/96
Date

aty Henry A. Armstrong
Manager, Small Airplane Directorate, ACE-100

3-8-96
Date

Attachment

ISSUE PAPER

P1

Project: The New Piper Aircraft, Inc.
Model PA-34-220T (V)
Project No. AT1568AT-A

Regulatory Reference: 23.1305 (b) (4)

National Policy Ref:

Stage: 3

Date: 2/28/96

Issue Status: Closed

Branch Action: 116A
117A
112

Subject: Powerplant Instruments, Fuel Pressure Indicator

Compliance Target: Pre-TIA

Compliance Status:

Statement of Issue: The New Piper Aircraft, Inc. has applied for an amended type certificate for a model PA-34-220T Seneca V. They wish to utilize a fuel flow indicator vice the currently required fuel pressure indicator.

Discussion: The Federal Register for Wednesday December 28, 1994, contains a proposed rule change to Part 23.1305 (b), NPRM Docket No. 28011, Notice 94-37. The proposed change would add paragraph (b) (4) (i) and (ii) to 23.1305 which would allow a means, for each pump-fed engine, to use either a fuel pressure indicator or a fuel flow indicator that provides continuous indication to the pilot.

FAA Position: The FAA concurs with the applicant's request based on the previously published proposed change to FAR 23.1305 (b).

Applicant Position: Piper would like to have the fuel flow indicators approved as an equivalent level of safety to FAR 23.1305 (b) (2) of Amendment 23-6. In lieu of a fuel pressure indicator, Piper wishes to install a means to continuously indicate to the pilot the fuel flow of each engine. This will provide the equivalent means for the pilot to monitor the operation of the fuel system and provide trend information.

Conclusion: Piper's request is accepted as an equivalent level of safety with FAR 23.1305 (b) (2) of Amendment 23-6. Fuel flow indicators will be installed which will continuously indicate to the pilot the fuel flow to each engine thereby providing trend information and also allow the pilot to monitor the operation of the fuel system.

Board Coordination:

ACE-	ACE-	ACE-	ACE-	ACE-	ACE-
116A	117A	115A	112	110	100
<i>W</i>	<i>AF</i>	<i>OT</i>	<i>DM</i>	<i>DM</i>	<i>W</i>

Henry A. Armstrong
Manager, Small Airplane Directorate

3-8-86
Date