U.S. Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed $1,000 for each such violation (Section 901, Federal Aviation Act of 1958).

1. Aircraft	Make: Piper	Model: PA-22-135
	Serial No.: 22-1646	Nationality and Registration Mark: N3383A
2. Owner	Name (As shown on registration certificate): Frank Sperandeo III	Address (As shown on registration certificate): 15841 Pear Circle, Fayetteville, AR 72704

3. For FAA Use Only

01-11-01 [signature] FAA Inspector

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type: Repair	Alteration
AIRFRAME	(As described in item 1 above)				
POWERPLANT				X	
PROPELLER					
APPLIANCE (Type)					
APPLIANCE (Manufacturer)					

6. Conformity Statement

A. Agency's Name and Address: Robert Dean, 14693 Wilmoth, Fayetteville, AR 72704

B. Kind of Agency:
- X U.S. Certificated Mechanic
- Foreign Certificated Mechanic
- Certificated Repair Station
- Manufacturer

C. Certificate No.: A/P 1625284

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date: 12 Sept 00

Signature of Authorized Individual: [signature]

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ APPROVED ☐ REJECTED

BY					
	FAA Fit Standards Inspector	Manufacturer	X	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection	Certificate or Designation No.	Signature of Authorized Individual
11 Jan 01	A/P 1625284 IA	[signature]

FAA Form 337 (12 88)

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. **Description of Work Accomplished**
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

1. Fabricated a 3" x 5" x .050 thk., 2024-T6 aluminum plate (door) with a MS520257P aluminum hinge attached on one side. (See Sheet A) Also affixed to top of door, is a 304 stainless steel arm/bracket fabricated and used as a cantilevered arm operated by a ratchetting, push/pull, ACS Product Co cable (See attached approved technical data for like cable pt #A-740, Sheet B) attached to the inside instrument panel. Door is fail-safed into the open position

2 Purpose: To regulate cooling airflow through oil cooler on cold days at altitude, enabling operator to maintain oil temperatures within green arc of indicator gage. Temperature at an ambient 53 degrees Fahrenheight OAT, with door open, indicated 160 deg. F (Top of yellow arc, below green, on oil temperature gage) With door closed , temperature at 6500 ft resulted in a stable oil temperature of 189 deg. F (center of green arc)

3 Installed placard on panel, above red actuating knob, in plain view of operator. Placard reads: "Oil Cooler Temp - Pull Hot"

4. Instructions for continued airworthiness:

a) inspect door hinge and operating lever for condition and security.

b) Insure positive operation of door through range of motion.

5. No significant change of existing weight and balance.

********** END **********

☐ Additional Sheets Are Attached

GPO U.S. GOVERNMENT PRINTING OFFICE: 1992-769-012/60157

SHEET A

US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only
Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed $1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make: Piper	Model: PA-22-135
	Serial No.: 22-1646	Nationality and Registration Mark: N3383A
2. Owner	Name (As shown on registration certificate): Frank P. Sperandeo III	Address (As shown on registration certificate): 15841 Pear Cir. Fayetteville, AR 72704

3. For FAA Use Only

THE ALTERATION(S) IDENTIFIED HEREIN COMPLIES WITH APPLICABLE AIRWORTHINESS REQUIREMENTS AND IS APPROVED ONLY FOR THE ABOVE DESCRIBED AIRCRAFT SUBJECT TO CONFORMITY INSPECTION BY A PERSON AUTHORIZED IN FAR 43.7.

4/3/96 — DATE
Ned L Hall — FAA INSPECTOR

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type: Repair	5. Type: Alteration
AIRFRAME	---------- (As described in item 1 above) ----------				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
K. V. Turney 17654 Marshall St. Garfield, AR 72732	X U.S. Certificated Mechanic Foreign Certificated Mechanic Certificated Repair Station Manufacturer	1464298

I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date	Signature of Authorized Individual
25, March 1996	K. V. Turney

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☐ APPROVED ☐ REJECTED

BY						
	☐	FAA Flt Standards Inspector	☐	Manufacturer	/ Inspection Authorization	Other (Specify)
	☐	FAA Designee	☐	Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection	Certificate or Designation No.	Signature of Authorized Individual
3/25/96		K. V. Turney

FAA Form 337 (10-88)

SHEET A

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

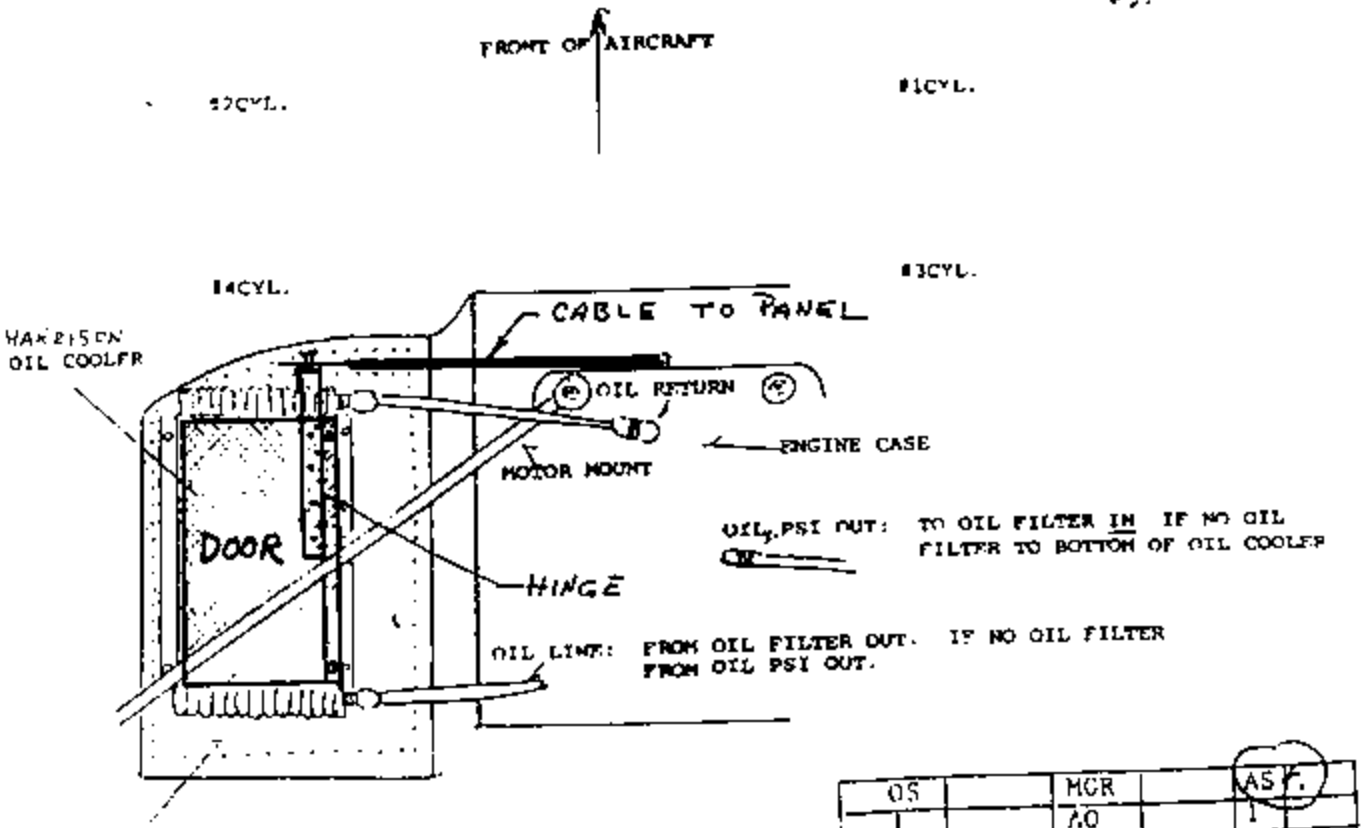
6. Description of Work Accomplished
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

1. Factory installed oil cooler was removed and baffeling was fabricated to eliminate old opening.

2. Install Harrison Oil Cooler, model #AP007AU06-03, P/N8526250, Serial number on left rear engine baffle. Oil cooler was removed from a Piper Cherokee 140 and will be installed in this installation in a similar manner using acceptable methods, techniques, and practices. The cooler was cleaned, inspected, and tested to 120 psi and submerged in water to check for leaks. Previous approved data on PA-22, registration number N9684D (FAA form 337 field approved 8-2-89, SAT FSDO) was used as a guideline for this installation.

3. A new left rear engine baffle was fabricated and reinforced using the original as a pattern. New Aeroquip 601 hoses have been installed and secured as necessary. This alteration was done exactly as the above field approval in every detail. The engine was run and all temperature and pressure readings were normal.

4 This alteration did not change existing weight and balance.



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OS		MCR		ASE
1		AO		1
2		CS		2
3		AP		3
4		RF		4
5		ASA1		5
6		ASA2		6
7		~~ASI~~		7
OTHER				8

RECEIVED

MAR 2 3 1995

FEB 2 [illegible]

☐ Additional Sheets Are Attached

FAA FSDO-11 (LIT)

N3383A S/N 22-1646

Attn: Frank

A C S PRODUCTS CO., INC.

P.O. BOX 152
LAKE HAVASU CITY, AZ 86403
(520) 855-8613

No. 5032

CERTIFICATE of COMPLIANCE

TO: Frank Sperandeo
15841 Deer Circle
Fayetteville, AR 72704

Date 4/15/97

P.O. No _____ Of _____

Attention: Quality Control Department

Our Part No. A-750-10-0480
A-750-20-0480

Customer Part No. _____

Description Vernier control cables

Quantity Shipped 2

Other Information ACS Products is a manufacturer of several FAA approved controls (which includes vernier and friction lock types). Mr. Sperandeo controls are manufactured using the same materials, pull test and inspection proceedures. We feel the mentioned controls are as good as or better than the originals that these are replacing.

Pull tested to 150LBS

We certify that all parts furnished are of the specified materials and conform to applicable specifications and / or standards. Test reports are on file and available for review

A C S PRODUCTS CO., INC.

Authorized Signature

U S Department of Transportation

Federal Aviation Administration

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS *('For Field Approvals-FAA Form 337)*

A/C Make Piper Model: PA-22-160 S/N: 22-1646 Reg. #: N3383A

Revision: _____ Date: 12 Sept-00

This sixteen item checklist are Instructions for Continued Airworthiness (ICA), to comply with FAA Handbook Bulletin for Airworthiness (HBAW 98- 18 Dated October 7, 1998), are applicable to the aircraft listed above when the following equipment is installed:

SYSTEM

ITEM	CHECKLIST INFORMATION
1.	**Introduction:** This section briefly describes the aircraft, engine, propeller, or component that has been altered. Include any other information on the content, scope, purpose, arrangement, applicability, definitions, abbreviations, precautions, units of measurement, referenced publications, and distribution of the ICA as applicable. **Comments:** modification to aircraft powerplant model O-320B2B S/N 2 1252-39
2.	**Description:** Of the major alteration, its functions, including an explanation of its interface with other systems, if any. **Comments:** refer to Item #2 entitled "Purpose" on 337
3.	**Control:** Operation information: Or special procedures, if any. **Comments:** oil cooler door to be operated to maintain oil temperature in green arc.
4.	**Servicing information:** Such as types of fluids used, servicing points, and location of access panels, as appropriate. **Comments:** door hinge should be lubricated at normal maint. intervals
5.	**Maintenance Instructions:** Such as recommended inspection/maintenance periods in which each of the major alteration components are inspected, cleaned, lubricated, adjusted, tested, including applicable wear tolerances and work recommended at each scheduled maintenance period. This section refers to the manufacturers' instructions for the equipment installed where appropriate (e.g., functional checks, repairs, inspections.) It should also include any special notes, cautions, or warnings, as applicable. **Comments:** System should be inspected at 100hr intervals
6.	**Trouble shooting information:** Information describing possible malfunctions, how to recognize those malfunctions, and the remedial actions to be taken. **Comments:** replace and faulty or damaged parts as required.

7.	**Removal and replacement information:** This section describes the order and method of removing and replacing products, parts and any necessary precautions. This section should also describe or refer to manufacturer's instructions to make required tests, trim checks, alignment, calibrations, center of gravity changes, lifting or shoring, etc., if any. Comments: System should be checked for complete and free opening and closing.
8.	**Diagrams:** Of access plates and information, if needed, to gain access for inspection. Comments: N/A
9.	**Special inspection requirements:** Such as X-ray, ultrasonic testing, or magnetic particle inspection, if required. Comments: N/A
10.	**Application of protective treatments:** To the affected area after inspection and/or maintenance, if any. Comments: Component parts are corrosion proofed w/ zinc chromate and paint.
11.	**Data:** Relative to structural fasteners such as type, torque, and installation requirements, if any. Comments: refer to AC43-13-1B for standard torques
12.	**List of special tools:** Special tools that are required, if any. Comments: N/A
13.	**For commuter category aircraft:** The following additional information must be furnished, as applicable: A. Electrical loads B. Methods of balancing flight controls C Identification of Primary and secondary structures D Special repair methods applicable to the airplane. Comments: N/A
14.	**Recommended overhaul periods:** Are required to be noted on the ICA when an overhaul period has been set by the manufacturer of a component, or equipment. If there is no overhaul period, the ICA should state for item 14: No additional overhaul time limitations. Comments: N/A

15.	**Airworthiness Limitation Section:** Include any "approved" airworthiness limitations identified by the manufacturer or FAA Type Certificate Holding Office (e.g., An STC incorporated in a larger field approved major alteration may have an airworthiness limitation.) The FAA inspector should not establish, alter, or cancel airworthiness limitations without coordinating with the appropriate FAA Type Certificate Holding Office. If there are no changes to the airworthiness limitations, the ICA should state for item 15: "No additional airworthiness limitations" or "Not Applicable." Comments: no additional limitations are imposed.
16.	**Revision:** This section should include information on how to revise the ICA. For example, a letter will be submitted to the local FSDO with a copy of the revised FAA Form 337 and revised ICA. The FAA inspector accepts the change by signing Block 3 and including the following statement: "The attached revised/new Instructions for Continued Airworthiness (date) for the above aircraft or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness (date)." Once the revision has been accepted, a maintenance record entry will be made, identifying the revision, its location, date of the Form 337. Comments: N/A

Note:

Implementation and Record Keeping: For major alterations performed in accordance with FAA Field Approval policy, the owner/ operator operating under part 91 is responsible for ensuring that the ICA is made part of the applicable section 91.409 inspection program for their aircraft. This is accomplished when a maintenance entry is made in the aircraft's maintenance record in accordance with section 43.9. This entry records the major alteration and identifies the original ICA location (e.g., Block 8 of FAA Form 337, dated *5/28/98)* along with a statement that the ICA is now part of the aircraft's inspection/maintenance requirements.

For major alterations performed in accordance with a field approval on air carrier aircraft, the air carrier operator is

Responsible for ensuring that the ICA is made part of the applicable inspection/maintenance program for their aircraft. If a procedure is not currently included in the operator's manual to incorporate ICA, this process will need to be appropriately addressed (i.e. the operator submits a revision to its maintenance program to the applicable certificate-holding district office (CHUDO).

For aircraft inspected under an Approved Aircraft Inspection Program (AAIP), the operator will submit a change to the CHDO in accordance with section 135.419 b).

For air carrier aircraft inspected using an annual/100 hour inspection program, a reference to the new ICA will be made in the aircraft's maintenance record in accordance with section 43.9. This entry records the major alteration and identifies the original ICA location (e.g., ICA is located/attached to Block 8 of FAA Form 337, dated 5/28/98). In addition, the operator will request a revision to the operator's Operations Specifications, additional maintenance requirements, which incorporates the ICA into the inspection program.