



WACO REGIONAL AIRPORT
P. O. BOX 5219
WACO, TEXAS 76708
254-752-8381

FOR FAA USE ONLY

OFFICE IDENTIFICATION

AEA-FSDO-17

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

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.

1. AIRCRAFT	MAKE Piper	MODEL PA-28-140
	SERIAL NO. 28-20933	NATIONALITY AND REGISTRATION MARK N6799W
2. OWNER	NAME (As shown on registration certificate) Stanley McKaig	ADDRESS (As shown on registration certificate) 87 Cedar Lane Princeton NJ 08540

3. FOR FAA USE ONLY

"The data/alteration identified herein complies with the applicable airworthiness requirements and is approved for the ~~above~~ described aircraft, subject to conformity inspection by a person authorized in FAR 43, section 43.7."

Engine

03-18-91
Date

Signature of FAA Inspector

4. UNIT IDENTIFICATION

5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTER- ATION
AIRFRAME	~~~~~ (As described in item 1 above) ~~~~~				
POWERPLANT	Avco Lycoming	o-320-E2D	L20842-27A		X
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
William H. Scott Jr. RD 4 Box 344B Hammonton, NJ 08037	☒ U.S. CERTIFICATED MECHANIC	P084507914
	☐ FOREIGN CERTIFICATED MECHANIC	
	☐ CERTIFICATED REPAIR STATION	
	☐ MANUFACTURER	

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 3-18-91	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>William H. Scott Jr.</i>
------------------------	---

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	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 3-18-91		CERTIFICATE OR DESIGNATION NO. IA136609024	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>John Anthony DeLorenzo</i>	

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.)

Engine modified too 160 HP. per Ram Aircraft Corporation conversion instructions, supplements & parts manual.

Approval for return to service is STC SE3692SW

Note minor deviation to STC is the replacement of original 7/16" propeller flange bushings with 3/8" propeller flange bushings per Lycoming parts listing for O-320E3D. Numerous high compression 160 HP. O320 engines were built by Lycoming with 3/8" propeller flange bushings, examples of which are. O-320-B1A-D2A. Both of these engines are certificated under T.C.#274 as is O-320-E2D.

The only other minor deviation to STC is the installation of fuel pump per Lycoming parts listing for O-320-E3D.

☐ ADDITIONAL SHEETS ARE ATTACHED

Supplemental Type Certificate

Number SE3692SW

This certificate issued to

RAM Aircraft Corporation
Waco-Madison Cooper Airport
P. O. Box 5219
Waco, Texas 76708

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 13 of the Civil Air Regulations.

Original Product—Type Certificate Number: E-274

Make: AVCO Lycoming Div. of Textron, Inc.

Model: O-320-E2D

Description of Type Design Change:

Increase 5 minute takeoff maximum power rating to 160 horsepower according to RAM Report No. 85-21 dated 8/14/86, or later FAA approved revision.

Limitations and Conditions:

1. Overhaul Manual Supplement dated July 25, 1986.
2. Parts Manual Supplement dated November 26, 1986.

Compatibility of this modification with other previously approved modifications must be determined by the installer.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: August 18, 1986

Date issued:

Date of issuance: November 26, 1986

Date amended:

By direction of the Administrator

For L. B. Andriesen (Signature)
Assistant Manager, Aircraft Certification
Division, Southwest Region
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.
This certificate may be transferred in accordance with FAR 21.47.

FAA Form 8110-2 (10-86)

Doc. Price \$1.50-2 (10-86)

This certificate may be transferred in accordance with FAR 21.47.

224 E 3 D

Supplemental Type Certificate

Number SE3692SW

RAM Aircraft Corporation
Waco-Madison Cooper Airport

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 13 of the Civil Air Regulations.

Original Product—Type Certificate Number: E-274

Make: AVCO Lycoming Div. of Textron, Inc.

Model: O-320-E2D

Description of Type Design Change:
Increase 5 minute takeoff maximum power rating to 160 horsepower according to later FAA approved revision.

Limitations and Conditions:

1. Overhaul Manual Supplement dated July 25, 1986.
2. Parts Manual Supplement dated November 26, 1986.

Compatibility of this modification with other previously approved modifications must be determined by the installer.

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Date of application: August 18, 1986

Date issued:

Date of issuance: November 26, 1986

Date amended:

By direction of the Administrator

For L. B. Andriesen (Signature)
Assistant Manager, Aircraft Certification
Division, Southwest Region
(Title)



Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.



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 Cessna	Model 172M
	Serial No. 17262730	Nationality and Registration Mark N14300
2. Owner	Name (As shown on registration certificate) Piercy Ronald S.	Address (As shown on registration certificate) 950 Municipal Airport road Moses Lake, Wa. 98837

3. For FAA Use Only

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				X
POWERPLANT	Lycoming	O-320-E2D	L-42475-27A		X
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Piercy Ronald S. 3788 Municipal Airport Rd. Moses Lake, Wa. 98837	B. Kind of Agency	C. Certificate No. A&P 1847126
	☒ U.S. Certificated Mechanic	
	☐ Foreign Certificated Mechanic	
	☐ Certificated Repair Station	
	☐ Manufacturer	

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 Feb 23, 1995	Signature of Authorized Individual
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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	☒	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection Feb 23, 1995		Certificate or Designation No. AI 1847126	Signature of Authorized Individual 		

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. Modified this aircraft for the use of auto fuel by installing placards at the fuel filling points. This done in accordance with STC SA1948CE.
2. Modified this engine for the use of auto fuel by installing a clamp band on a pushrod housing. This done in accordance with STC SE1931CE.

Note: This aircraft was modified for auto fuel in October 1984 according to log book records. The aircraft was wrecked and rebuilt in 92-93. The fuel placarding was lost, Also the 337's and the operational data was lost. Also the engine was changed. Thus this 337 and placarding was done to replace something which was lost or destroyed.

-----N13400-----



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 Cessna	Model 172M
	Serial No. 17262730	Nationality and Registration Mark N1340-
2. Owner	Name (As shown on registration certificate) Center O Flying club	Address (As shown on registration certificate) Box 1573 Olympia, Wa.

3. For FAA Use Only

4. Unit Identification

5. Type

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

6. Conformity Statement

A. Agency's Name and Address Ronald S. Piercy 950 Municipal Airport Rd. Moses Lake, Wa. 98837	B. Kind of Agency ☒ U.S. Certificated Mechanic ☐ Foreign Certificated Mechanic ☐ Certificated Repair Station ☐ Manufacturer	C. Certificate No. A&P 184712 6
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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 June 21, 1993	Signature of Authorized Individual
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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 June 21, 1993	Certificate or Designation No. AI 1847126	Signature of Authorized Individual
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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. Replaced skin sheet over top of cabin between front and rear spar carry throughs.
Part number is 0511801-4. Location is between station 33 and 67.
2. Replaced leading edge skin on right wing from wing station 100.5 to 208.0.
Part number is 0523029-4.
3. Replaced aft spars in both wings from wing station 23.62 to 100.5. Part numbers are 0523041-3 and 0523041-4.
4. Replaced skin top sheet on right wing from station 154 to 208. Part number is 0523011 -4
5. Replaced skin bottom sheet on right wing from station 154 to 208. Part number is 0523011-10
6. Replaced skin bottom sheets on both wings from station 23.62 to 57.12. part numbers are 0523011-5 and 0523011-6.

In all cases riveting was done in accordance with 43.13 Chg.3 Original rivet spacing, patterns and rivet sizes were copied.

-----N13400-----

☐ Additional Sheets Are Attached



AIRPLANE SUPPLEMENTAL FLIGHT MANUAL

FOR

LANDPLANE OR FLOATPLANE

CESSNA MODELS 172I, 172K, 172L, AND 172M

WITH

LYCOMING O-320-D2J OR O-320-E2D (AS MODIFIED PER STC SE3692SW)

MODEL NUMBER 172m

REGISTRATION NUMBER N13400

SERIAL NUMBER 17262730

This Supplemental Flight Manual is F.A.A. approved material and must be in the airplane for all operations when Lycoming O-320-D2J or O-320-E2D (as modified per STC SE3692SW) engine is installed in accordance with STC SA2375SW. The information contained herein supplements or supersedes the information in the form of placards, markings, and manual material. For limitations, procedures and performance information not contained in this Supplemental Flight Manual consult the basic airplane placards, markings and manual material.

F.A.A. APPROVED:

for

Larry Andriesen
Larry Andriesen, Manager
Aircraft Certification Division
Southwest Region
FEDERAL AVIATION ADMINISTRATION
Southwest Region
Fort Worth, Texas 76101

AUG 27 1987

Date: _____

STC No. SA2375SW

Page 1 Of 3 Pages



CESSNA 172I, 172K, 172L, AND 172M

SUPPLEMENTAL FLIGHT MANUAL

GENERAL

- | | | |
|----|------------------------------|--|
| 1. | ENGINE | Lycoming O-320-D2J Or Lycoming O-320-E2D
(As Modified Per STC SE3692SW) |
| 2. | FUEL | 100/130 Minimum Octane |
| 3. | PROPELLER | McCauley 1C160/CTM7557
Or
McCauley 1C160/DTM7557 |
| | PROPELLER
(Seaplane Only) | McCauley 1A175/ETM8042
Or
McCauley 1A175/ATM8042 |

II.-----LIMITATIONS

- | | | | |
|----|-------------------|---|-------------------|
| 1. | ENGINE LIMITS | Maximum Continuous: | 150 HP - 2650 RPM |
| | | Take-Off (5 Minutes): | 160 HP - 2700 RPM |
| 2. | PROPELLER LIMITS | Static RPM at maximum throttle setting: | |
| | | Not over 2420, not under 2300 | |
| | | Diameter: Maximum 75.0 inches | |
| | | Minimum 74.0 inches | |
| 3. | PROPELLER LIMITS | Static RPM at maximum throttle setting: | |
| | (Seaplane Only) | Not over 2570, not under 2470 | |
| | | Diameter: Maximum 80.0 inches | |
| | | Minimum 78.5 inches | |
| 4. | ENGINE INSTRUMENT | Tachometer: | |
| | MARKINGS | Green Arc | 2200 - 2650 RPM |
| | | Yellow Arc | 2650 - 2700 RPM |
| | | Redline | 2700 RPM |
| | | Oil Pressure: | |
| | | Redline | 25 PSI |
| | | Green Arc | 60-90 PSI |
| | | Redline | 100 PSI |
| | | Cylinder Head Temperature (If Installed): | |
| | | Green Arc | 225 - 425 F. |
| | | Redline | 500 F. |

AUG 27 1987

F. A. A. APPROVED: _____

STC No. SA2375SW

Page 2 Of 3 Pages

Waco-Madison Cooper Airport • P.O. Box 5219 • Waco, Texas 76708-0219

Phone 817-752-8381 • Telex 11 910-894-5248



CESSNA 172I, 172K, 172L, AND 172M

SUPPLEMENTAL FLIGHT MANUAL

III. _____ PROCEDURES

No Change

IV. _____ PERFORMANCE

The performance of this airplane equipped with a Lycoming O-320-D2J or O-320-E2D (as modified per STC SE3692SW) engine is equal to or better than the original F.A.A. approved performance

AUG 27 1987

F. A. A. APPROVED: _____

STC No. SA2375SW

Page 3 Of 3 Pages

Department of Transportation — Federal Aviation Administration

Supplemental Type Certificate

REPLACEMENT PAPERWORK

Original Purchase Date 9-22-84

Replacement Date 1-13-95

Signature [Signature]

Number

SE1931CE

000156

This certificate, issued to

Petersen Aviation, Inc.
Route 1, Box 18
Minden, Nebraska 68959

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 13 of the Civil Air Regulations.

Original Product — Type Certificate Number:

E-274

Make:

Lycoming

Model:

O-320, O-320-A1A, -A1B, -A2A, -A2B, -A2C, -A2D, -A3A, -A3B, -A3C, -C1A, -C1B, -C2A, -C2B, -C2C, -C3A, -C3B, -C3C, -E1A, -E1B, -E1C, -E1F, -E2A, -E2B, -E2C, -E2D, -E2F, -E2G, -E2H, -E3D, -E3H, -E1J

Description of Type Design Change:

Add the following approved fuel: unleaded automotive gasoline, 87 minimum antiknock index and leaded automotive gasoline, 88 minimum antiknock index, (RON + MON)/2, per ASTM Specification D-439. Intermixing with aviation gasoline also approved. Data Required: 1. A copy of this certificate. 2. Petersen Drawing List L-320() dated December 12, 1983, or later "FAA Approved" revisions.

Limitations and Conditions:

This approval should not be extended to other specific engines of this model that incorporate any other previously approved modification, unless it is determined that the interrelationship between this change and any other previously approved modification will introduce no adverse effect on the airworthiness of this engine model. Specific approval must be obtained for each model aircraft to insure compatibility with its fuel system.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: July 19, 1983

Date reissued:

Date of issuance: February 22, 1984

Date amended: November 1, 1984



By direction of the Administrator

Laurence A. Herron

for Robert A. Gambrell, Jr., Manager
Wichita Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

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

REPLACEMENT PAPERWORK

Original Purchase Date 9-22-84

Replacement Date 1-13-95

Signature [Signature]

Number SA1948CE

000156

This certificate, issued to Petersen Aviation, Inc.
Route 1, P.O. Box 18
Minden, Nebraska 68959

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.

Original Product — Type Certificate Number: 3A12

Make: Cessna

Model: 172, 172A, B, C, D, E, F, G, H, I, K, L, M

Description of Type Design Change: Operation of airplane on unleaded automotive gasoline, 87 minimum antiknock index and leaded automotive gasoline, 88 minimum antiknock index (RON + MON)/2 per ASTM Specification D-439. Intermixing with aviation gasoline also approved. DATA REQUIRED: Petersen Drawing List Cessna 172 dated December 12, 1983, or later FAA Approved revision.

Limitations and Conditions: Limited to those airplanes equipped with gravity fuel feed to the carburetor and certificated (original or STC) or FAA Field Approved engine installations. All engines must have separate approval for operation on automotive gasoline in the form of Supplemental or Type Certificate approval. This approval should not be extended to other specific airplanes on which other previously approved modifications are incorporated, unless it is determined that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of the airplanes.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: November 6, 1983

Date of issuance: March 23, 1984

Date issued:

Date amended: March 30, 1990, August 27, 1984
June 23, 1992

By direction of the Administrator

[Signature]
(Signature)

for Lawrence A. Herron, Manager
Wichita Aircraft Certification Office

(Title)



Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.



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 Cessna	Model 172M
	Serial No. 17262730	Nationality and Registration Mark N13400
2. Owner	Name (As shown on registration certificate) Ronald S. Piercy	Address (As shown on registration certificate) 950 Municipal Airport Road Moses Lake, WA 98837

3. For FAA Use Only

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	~~~~~(As described in Item 1 above)~~~~~				XX
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Mike Garneau Rainbow Flying Service 3788 Municipal Airport Road Moses Lake, WA 98837	B. Kind of Agency	C. Certificate No. A&P536608005
	☒ U.S. Certificated Mechanic	
	Foreign Certificated Mechanic	
	Certificated Repair Station	
	Manufacturer	

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 **Dec. 13, 1995**

Signature of Authorized Individual

Michael D Garneau

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	☒ Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection Dec 13, 1995		Certificate or Designation No. AI 1847126	Signature of Authorized Individual <i>Ronald S Piercy</i>	

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.)

In accordance with STC SA8031SW

Installed Zeftronics Alternator Controller Unit P/N R15100RevA, in accordance with Zeftronics Drawing Z00IDC, dated 1/31/91 (R15100), or Z100IDD, date 1/31/91 (R15V00), or later FAA approved revision.

-----N13400-----

☐ Additional Sheets Are Attached



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark USA N13400	Serial No. 17262730	
	Make Cessna	Model 172M	Series 100
2. Owner	Name (As shown on registration certificate) Cannan Aviation Inc.	Address (As shown on registration certificate) Address 605 Del Prado Lane	
		City Georgetown State TX	Zip 78628 Country USA

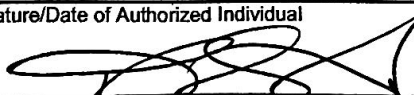
3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME		(As described in Item 1 above)	
☐	☒	POWERPLANT	Lycoming	O-320-E2D	L-20842-27A
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name Reine Kennedy Smith IV		☒ U. S. Certificated Mechanic	Manufacturer
Address 5407 Honey Dew Terrace		☐ Foreign Certificated Mechanic	C. Certificate No.
City Austin State TX		☐ Certificated Repair Station	3279628
Zip 78749 Country USA		☐ Certificated Maintenance Organization	

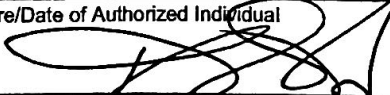
D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B ☐	Signature/Date of Authorized Individual  May 08, 2020
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station X	Inspection Authorization	

Certificate or Designation No. 3279628	Signature/Date of Authorized Individual  May 08, 2020
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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.)

USA N13400**May 08, 2020**

Nationality and Registration Mark

Date

Lycoming O-320-E2D, S/N L-20842-27A previously modified IAW RAM Aircraft STC SE3692SW to increase 5 minute takeoff maximum power to 160 HP and 150 HP METO, on 337 form dated 3-18-1991. Received new paperwork from RAM Aircraft for engine records. Installed new engine data plate provided by RAM aircraft IAW drawing no. 1605, Rev. E, dated 4/27/93. Installed engine on aircraft IAW Ram Aircraft STC SA2375SW-D and RAM drawing R17201, Rev H, Date December 10, 1986. Tachometer remarked. Propeller repitched. New AFMS placed in POH. —END—

☐ Additional Sheets Are Attached

Supplemental Type Certificate

Number SA2375SW-D

This Certificate issued to

RAM Aircraft, Limited Partnership
7505 Karl May Drive
Waco, TX 76708

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.

Original Product Type Certificate Number: 3A12

Make: Cessna

Model: 172D; 172E; 172F; 172G; 172H; 172I; 172K;
172L; 172M; 172N

Description of Type Design Change:

Installation of Lycoming O-320-D2G, O-320-D2J, or O-320-E2D (as modified by STC SE3692SW-D) engine rated for 160 h.p. take-off and 150 h.p. METO for models 172I, 172K, 172L, and 172M according to RAM Dwg. R17201 Rev. F dated 12/9/86; or installation of Lycoming O-320-D2G, O-320-D2J, or O-320-E2D (as modified by STC SE3692SW-D) engine rated for 160 h.p. take-off and 145 h.p. METO for models 172D, 172E, 172F, 172G, and 172H according to RAM Dwg. 17202, Rev. K dated 12/9/86; or installation of Lycoming O-320-D2G, O-320-D2J or O-320-E2D (as modified by STC SE3692SW-D) engine (160 h.p., 2700 r.p.m) in model 172N according to RAM Dwg. 17203, Rev. L dated 12/9/86; or later FAA approved revision.

Limitations and Conditions:

(See continuation sheet 3 of 3)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 07, 1976

Date reissued: October 08, 2001, September 20, 2002;
May 12, 2008, August 25, 2008

Date of issuance: November 01, 1976

Date amended: June 10, 1977; March 30, 1978;
November 9, 1978; January 26, 1979; February 3, 1981;
September 28, 1981; November 5, 1981; August 28,
1987 Revision 8



By direction of the Administrator

Terry L. Bowden
(Signature)

Terry L. Bowden
DAS administrator
RAM Aircraft LP
DAS-700100-SW
Waco, Texas

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.



February 28, 2020

KEN'S MOBILE MECHANICS
KEN
222 AIRPORT DRIVE
LOCKHART, TX 78644

RE: STC Permission Statement

Dear Sir or Madam:

**This letter serves as a one-time authorization per our agreement to install
a Lycoming Engine Model 0-320-E2D on Cessna Aircraft Model 172M
Serial No. 17262730.**

**Installation is to be done in accordance with RAM AIRCRAFT LIMITED
PARTNERSHIP STC SA2375SW-D.**

Sincerely,

A handwritten signature in cursive script, appearing to read "William Green".

WILLIAM GREEN
Quality Assurance Dept.

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

Number SE3692SW

This Certificate issued to RAM Aircraft, Limited Partnership
7505 Karl May Drive
Waco, TX 76708

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 13 of the Civil Air Regulations.

Original Product Type Certificate Number E-274

Make: AVCO Lycoming Div. of Textron, Inc.

Model: O-320-E2D

Description of Type Design Change:

Increase 5 minute takeoff maximum power rating to 160 horsepower according to RAM Report No. 85-21 dated 8/14/86, or later FAA approved revision.

Limitations and Conditions:

The following supplements or later FAA Approved revisions are required:

1. Overhaul Manual Supplement dated July 25, 1986.
2. Parts Manual Supplement dated November 26, 1986.

Compatibility of this design change with previously approved modifications must be determined by the installer. 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 which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: August 18, 1986

Date reissued: October 8, 2001

Date of issuance: November 26, 1986

Date amended:



By direction of the Administrator

S. Frances Cox
(Signature)
S. Frances Cox, Manager
Special Certification Office,
Southwest Region

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

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

Number SA256NW

THIS COPY OF STC
FOR AIRCRAFT RECORDS
OF CESSNA

N 13400 Ser. No 17262730

AND NO OTHER

This certificate, issued to B & M Aviation

certifies that the change in the type design for the following product with the limitations and conditions

therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air

Regulations.

* See attached Master Eligibility List (MEL)
No SA256NW for list of approved airplane
models and applicable airworthiness regu-
lations

Original Product — Type Certificate Number:

Make:

Model:

Description of Type Design Change: Installation of aileron Gap Seals ^{+ flap seals} with B & M
Aviation's Installation Instructions No. BM6 dated November 3, 1975.

Limitations and Conditions: The approval of this change in type design applies basically to the aircraft models listed on FAA Approved MEL No. SA256NW and should not be extended to other specific models of these airplanes on which other previously approved modifications are incorporated, unless it is determined that the interrelationship will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this Certificate, Master Eligibility List No. SA256NW and B & M Aviation's Installation Instructions No. BM6 dated November 3, 1975 shall be maintained as part of the permanent records for each aircraft modified.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: November 3, 1975

Date reissued:

Date of issuance: February 9, 1976

Date amended:



By direction of the Administrator

Charles C. Schneider
(Signature)

Chief, Engineering and Manufacturing Branch
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

New INTERIOR

2024

BURN CERT.

Leather N-13402
10-2021

Making Aircraft Quieter, Safer and More Comfortable.
600 North Highway 251, Davis Junction, IL 61620 | 800 943 7135 | www.skandla.com

TEST RESULTS
Appendix F Part I (a)(1)(II)

Skandla, Inc. WO # 306391-16
Client PO 684545

Doc ID: 12NW-347918
Test Plan #
Rev.

Project #
Technician Rickey Ryerson

AIRCRAFT COMPONENT IDENTIFICATION

Serial: N/A

Tail: N/A

Conditioning Room Data: Date In: 04/12/2016 Time In: 10:30 Date Out: 04/13/2016 Time Out: 10:40

SPECIMEN MATERIALS

Part No: RHC209

Edelman Leather, LLC: Leather, Royal Hide, Moderate White

Lot No AA16ETFL/AC16ETFL

Set	Flame Application (seconds)	Flame Time (seconds)	Burn Length (Inches)	Drip Flame Time (seconds)
1	12	0.0	0.4	0.0
2	12	0.0	0.4	0.0
3	12	0.0	0.4	0.0
Average:		0.0	0.4	0.0

Vertical (12 second) Burn Test: Average Self-Extinguish time may not exceed 15 seconds.
Average Burn Length may not exceed 8 inches. Average Dripping may not exceed 5 seconds after falling.

Comments:

☒ Passed ☐ Failed

CERTIFICATION: I certify that after testing these specimens, the above results were obtained in accordance with the procedures and equipment specified by Code of Federal Regulations Title 14 Part 25, or the Aircraft Materials Fire test handbook. Not FAA approved unless an 8110-3 has been issued.

Rickey Ryerson
WITNESS

04/13/2016

DATE



US Department
of Transportation
Federal Aviation
Administration

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

Form Approved
OMB No. 2120-0020
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark USA N13400	Serial No. 17262730	
	Make Cessna	Model 172M	Series 100
2. Owner	Name (As shown on registration certificate) Cannan Aviation Inc.	Address (As shown on registration certificate) Address 605 Del Prado Lane	
		City Georgetown	State TX
		Zip 78628	Country USA

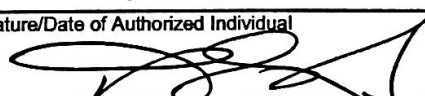
3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	AIRFRAME		(As described in Item 1 above)	
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name	Reine Kennedy Smith IV	☒ U. S. Certificated Mechanic	Manufacturer
Address	5407 Honey Dew Terrace	☐ Foreign Certificated Mechanic	C. Certificate No.
City	Austin	☐ Certificated Repair Station	3279628
Zip	78749	☐ Certificated Maintenance Organization	
State	TX		
Country	USA		

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

Extended range fuel per 14 CFR Part 43 App. B ☐	Signature/Date of Authorized Individual  May 08, 2020
--	--

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ Approved ☐ Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	X Inspection Authorization	Other (Specify)

Certificate or Designation No. 3279628	Signature/Date of Authorized Individual  May 08, 2020
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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.)

USA N13400

May 08, 2020

Nationality and Registration Mark

Date

Removed Cessna P/N 0552130-11 and installed Dynamic Propellers LLC P/N DP0552130-11 IAW STC SA01088SE, Dynamic Propellers LLC drawings list 30DL, revision New, Dated April 18, 2002 and Dynamic Propellers LCC installation instructions in kit DP0552130-11. Weight and balance change is negligible. END

United States of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number SA01088SE

This certificate, issued to

Dynamic Propellers LLC
341 Lisa Lane
Pasco, WA 99301

Permitted to be used for the following aircraft and only valid when the signature in the approval box is signed by Jack Vazquez, Inc. the Data Card is returned to Dynamic Propellers. Model _____ Serial number _____ Aircraft registration _____ Date 8/18/19

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.

Original Product—Type Certificate Number: 3A12
Make: Cessna
Model: 172L, 172M

Description of the Type Design Change: Installation of Dynamic Propellers induction air inlet on carburetor air box in accordance with Dynamic Propellers Drawings List 30DL, Revision New, dated April 18, 2002, or later Federal Aviation Administration (FAA) approved revision.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of these previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this certificate must be maintained as part of the permanent records for the modified aircraft.

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 which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: April 18, 2002

Date reissued: December 10, 2014

Date of issuance: May 14, 2002

Date amended:



By direction of the Administrator

Andrew Brown
(Signature)

FO Manager, Seattle Aircraft Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

I hereby authorize the following repair work to be done along with the necessary materials, and hereby grant you and/or your employees permission to operate and fly the aircraft herein described for the purpose of testing and/or inspection. An Express Mechanic's Lien is hereby acknowledged on below aircraft to secure the amount of repairs thereon. You will not be held responsible for loss or damage to the aircraft or articles left in aircraft in case of fire, theft, or any other cause beyond your control.

Cust. Order No

Terms:
Cash

DIAMOND AVIATION SERVICE

8801 NW A Avenue
Pendleton, Oregon 97801
Telephone: 509-276-2431

Mail: P.O. Box 425
Weston, OR 97866
FAX: 509-276-7497

7-4-01

Customer and Aircraft Information

No 000384

Name Lloyd Piercy
Address 33927 Riverview Dr.
City, State & Zip Hermiston OR 97838

Phone work
Home

A/C Model 172M S/N 1726273D N13400
MFG. Cessna Date of Mfg. 1974
Hobbs 4361.0 Tach 4361.0
A/C T.T. 4361.0

Engine T.T. Left 4407.3 Right
Engine SMOH Left 1246.3 Right

Propeller T.T. Left Right
Propeller SMOH Left Right

SERVICE DESCRIPTION		
1	main wheel cracked, into crank pit	
2	sh. battery TDMC charger malfunction	
3	12.5 AMP (3 cr 1.280 - 1.285)	
4	AC negative ok for nose section	
5	wing stops - repair cracks RH top	
6	check AC (water pump)	
7	all wheel bearings Mobil 28 grease	
8	replace both engine oil cooler fans (no.)	
9	remove cracked & order new at 00	
10	warning light wiring	
11	23 items emergency list repaired	
12	MS27039-0808 screws (10)	2.20
13	MS27039-0812 screws (20)	3.20
14	MIL-H-6880-34 Hose (2 ft)	8.06
See Separate Service Sheet ☐		Labor Total 13.46

Totals		Misc
Labor	39.01 / 49.24	
Parts	(118) 60.13 + 32.25	
Misc.	1236.31 parts	20.00
	1560.00 labor	4.43
	2775.31	3.52
		11.25
Total	2775.31	Misc. Total 32.25

Quan	P/N & Description	Each	Total Amount
1	Kit Cleveland wheel conversion		
1	Flat 1.340	Cost	911.20
1	Michelin 6.00-6 Tire (177.81)		87.91
1	" " Tube (151.42)		27.67
1	BA6108 Air filter (8.16)		5.71
1	11/S60280 oil hose		32.67
1	11/S60250 " "		36.80
1	EFT battery (33.00)		23.10
2	CH48110 Oil filter (13.88)		27.76
1	52441-14 cow / mount	14.00	10.50
1	D2-11-5 instrument filter	32.00	24.30
See Separate Parts Sheet ☐		Parts Total	1189.60

THANK'S

Pd 1200-00 9/07/01

Ref N: 7149U

Model: M20E

MFG: Mooney

S/N: 388

Total Time:

1665.67

Tach / Hobbs: 1665.67 / 910.10

Date: 09-2022

Researcher: MS

Location: MS

REMOVED THE FOLLOWING PART FROM
THE ABOVE REFERENCED AIRCRAFT.

MFG: Whelen

Strobe Light Power Supply

Assy (V: 14, A: 1.7)

M/N: A490T-DF-14

USE M/N: A490T-CF-14

S/N: _____

Part Total Time: _____

TIME SINCE OVERHAUL: _____