



US Department of Transportation
Federal Aviation Administration

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

OMB No. 2120-0020
Exp: 5/31/2018

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 N1459V	Serial No. 17263596	
	Make CESSNA	Model 172M	Series
2. Owner	Name (As shown on registration certificate) JAC AERO CO LLC		
	Address (As shown on registration certificate) Address 129 W BANKHEAD ST		
	City NEW ALBANY	State MISSISSIP	
	Zip 38652-3314	Country USA	

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	<u>CESSNA</u>	(As described in Item 1 above)	<u>17263596</u>
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency		C. Certificate No. RH4R492M
Name	CARPENTER AVIONICS INC	<input type="checkbox"/>	U. S. Certificated Mechanic	
Address	624B FITZHUGH BLVD	<input type="checkbox"/>	Foreign Certificated Mechanic	
City	SMYRNA State TN	<input checked="" type="checkbox"/>	Certificated Repair Station	
Zip	37167 Country USA	<input type="checkbox"/>	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 <input type="checkbox"/>	Signature/Date of Authorized Individual 2347443 SEPT 19, 2019
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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 Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. RH4R492M	Signature/Date of Authorized Individual 2347443 SEPT 19, 2019
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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.)

CESSNA 172M	W/O 011583
USA N1459V	Sept 19, 2019
Nationality and Registration Mark	Date

ITEMS REMOVED:Garmin GTX327 Transponder P/N 011-00490-00.

ITEMS INSTALLED:Garmin GTX345 w/out GPS P/N 011-03302-00.

A Garmin GTX345 transponder w/out GPS was installed in the same location as the removed GTX327 and interfaced to the GNS430W, newly installed transponder antenna and Altitude Encoder. The GTX345 was installed using new RG-142 transponder coax and circuit breaker. Power to the GTX345 was connected to the avionics buss using a new 3 amp resettable circuit breaker labeled Xponder installed in the same location as the removed 5 amp circuit breaker. The Garmin GTX345 was installed under the guidelines and in reference to Garmin GTX3XX transponder Part 23 AML STC IM P/N: 190-00734-10 Rev13 September 2019 Ref: STC/AML SA01714WI. The installed ADS-B OUT system was shown to meet the equipment performance requirements of 14 CFR section 91.227.

The newly installed transponder was evaluated and tested using IFR ATC6000 equipment and found to be within the parameters of the IM Operation/Performance Ground Check. Satisfactorily performed tests and inspections as required by FAR 91.413, Part 43 Appendix F and Altitude Reporting Correlation Test per FAR Part 43 Appendix E (c). Satisfactorily performed ADS-B Checks.

Additionally Referenced AC43.13-1B Chapter 11 Sect. 1-3; Chapter 12 Sect. 1,2,3,12 and AC43.13-2B Chapter 11 for the work described above.

These components have been inspected and work described above found airworthy for return to service.

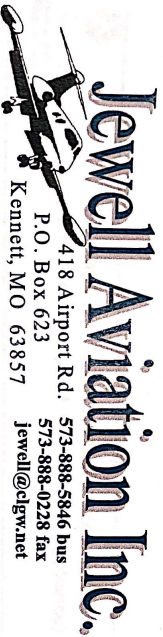
A Garmin GTX3X5 AFMS p/n 190-00734-15 Rev. 4 dated Sep 2019 was placed in the aircraft POH.

A Garmin GTX3X5 ICA as contained within the Garmin GTX33/GTX3X5 Maintenance Manual p/n 190-00734-11 Rev. 7 dated Sep 2019 was inserted into the aircraft records.

See Weight and Balance Report dated Sept 19, 2019 for stations of removed and installed equipment. Maintenance Entry Made. Pertinent details on file at this repair station under Work Order #011583.

----- END -----

Additional Sheets Are Attached



WARRANTY POLICY

We at Jewell Aviation have a policy of 100-hour warranties or one year whichever occurs first, on parts and labor for any defect in workmanship on engine majors. This warranty is to be accomplished by us in our shop when at all possible. Any work done without prior authorization voids our warranty. In the event that the engine cannot be brought to us, we reserve the right to come to the aircraft and make necessary repairs or corrections. For engines that are not installed by us, proof of the installing Tach or Hobbs time must be provided.

Jewell Aviation cannot be responsible for any problem with the engine caused by an item or items such as accessories, which were not overhauled or replaced at the time of overhaul as per the customer's request nor items or parts supplied by the customer. Items overhauled by anyone other than Jewell Aviation or assemblies such as cylinders, starter clutches, etc... are not covered under our warranty, those claims should be made directly to the facility which did the manufacturing, overhaul or repair.

In the event of an improper break in or for some reason the rings do not seat properly, Jewell Aviation will furnish the labor to correct the problem, but the owner will be responsible for all parts. In the event that the owner chooses not to bring the aircraft back to us to correct the problem, Jewell Aviation allows a maximum of three hours per cylinder for removal and installation; however, this needs to be approved by Jewell Aviation before removal of the cylinders. Any cylinders removed from the aircraft must be returned to Jewell Aviation for inspection prior to any work being done on the cylinders. As mentioned in the above, we reserve the right to come to the aircraft or to fly the aircraft to our facility providing the aircraft is still airworthy.

All engines must use non-detergent oil for the first 100 hours of operation and oil changes must be at 25-hour intervals for the first 100 hours. Due to the manufacturer's recommendation for parts, no auto fuel is to be used for the first 100 hours of operation. First oil change must be performed before 25 hours TIS after overhaul or warranty is void.

Jewell Aviation will not be responsible for any down time or loss of revenue while repairs or adjustments are being made.

Sam Jewell, President
Jewell Aviation Inc.



U.S. 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. 1421). 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 N1459V	Serial No. 17263596	
	Make Cessna	Model 172	Series M
2. Owner	Name (As shown on registration certificate) J-COM INC.	Address (As shown on registration certificate) Address P.O. Box 180549	
		City Richland	State MS
		Zip 39218-0549	Country USA

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial Number
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	POWERPLANT	Lycoming	O-320-E3D	L-45199-27A
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name David Jewell		<input checked="" type="checkbox"/> U.S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address 1624 West Washington St.		<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City Kennett	State MO	<input type="checkbox"/> Certificated Repair Station	3036572
Zip 63857	Country USA	<input type="checkbox"/> 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: David Jewell 5-31-2012

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	<input type="checkbox"/> FAA Fit Standards Inspector	<input type="checkbox"/> Manufacturer	<input type="checkbox"/> Maintenance Organization	<input type="checkbox"/> Person Approved by Canadian Department of Transport
	<input type="checkbox"/> FAA Designee	<input type="checkbox"/> Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No. 3036572

Signature/Date of Authorized Individual: David Jewell 5-31-2012



May 11, 2012

Jewell Aviation, Inc.
Attn: Sam Jewell
418 Airport Road
Kennett, MO. 63857

RE: STC USAGE AGREEMENT

Dear Sir:

This letter serves as a one-time authorization per our installation center agreement to install a Lycoming Engine Model (check one)
0-320-D2G, or 0-320-D2J, or X 0-320-E2D (as Mod. Per
STC#SE3692SW) on Cessna Aircraft Model 172M, S/N 17263596,
Registration no. N1459V.

Installation is to be done in accordance with RAM AIRCRAFT LIMITED
PARTNERSHIP STC No. SA2375SW-D.

Sincerely,

Tommy Derrick
QC Inspector



May 11, 2012

Jewell Aviation, Inc.
Attn: Sam Jewell
418 Airport Road
Kennett, MO. 63857

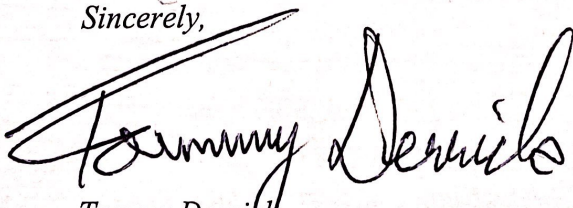
RE: STC USAGE AGREEMENT

Dear Sir:

This letter serves as a one-time authorization per our installation center agreement to modify Lycoming engine Model 0-320-E2D, Engine Serial No. L-45199-27A, to increase 5 minute takeoff maximum power to 160 HP, on Aircraft Serial No. 17263596, Registration No. N1459V.

Modification is to be done in accordance with RAM AIRCRAFT LIMITED PARTNERSHIP STC No. SE3692SW-D.

Sincerely,


Tommy Derrick
QC Inspector

Rev.	Change Description	ECN	By	Date
-	Original Issue.			11/26/86
A	Added cylinder P/N LW-12416, 75868, 75907, LW-12417.			1/5/90
B	Updated to RAM dwg. format; added eligibility and parts list notes; added usage code to parts list; removed intake valve P/N 73938, intake valve seat P/N 72057, exhaust valve seat P/N 72058, cylinder P/N 75868, 75907 & LW-12417; added piston ring P/N 74241.	3934	S. Johnson	6/25/04

DRAWING ELIGIBILITY:

1. Lycoming O-320-E2D engine modified in accordance with STC SE3692SW.
2. This drawing supercedes RAM Drawing 1267 and RAM Drawing 1487.
3. See RAM Drawing 1887 for engine overhaul and assembly information.


SUPPLEMENTAL PARTS LIST:

1. The engine components specified below are required, as specified by the usage code, for RAM modified O-320-E2D engine. All other engine components for RAM modified O-320-E2D engine are standard Lycoming O-320-E2D engine parts as specified in Textron Lycoming Parts Catalog No. PC-203-1, dated July 1984, or later approved revision, and in current Textron Lycoming service information.
2. FAA-approved PMA replacement parts may be used in place of any part number specified below and for any standard Lycoming O-320-E2D engine part.
3. Codes:
S = Standard part
O = Optional part

PART NO.	MFG.	DESCRIPTION	QTY.	CODE
75089	Lycoming	Piston, 8.50:1 compression ratio	4	S
LW-14077	Lycoming	Pin, piston (9/16" ID)*	4	O
LW-14078	Lycoming	Pin, piston (37/64" ID)*	4	S
LW-19001	Lycoming	Valve, exhaust	4	S
60028	Lycoming	Valve guide, intake	4	S
74230	Lycoming	Valve guide, exhaust	4	S
LW-13659	Lycoming	Carburetor (Marvel-Schebler model MA4SPA)	1	S
1061	RAM	Data plate, supplemental	1	S
LW-12419	Lycoming	Cylinder & head assembly, chrome	4	O
74673	Lycoming	Ring, piston, top compression (plain ring for chrome cylinder)	8	O
73998	Lycoming	Ring, piston, oil regulating, expander type (for chrome cylinder)	4	O
LW-12416	Lycoming	Cylinder & head assembly, nitrided	4	O
74241	Lycoming	Ring, piston, top compression (chrome ring for nitrided cylinder)	8	O

* See Textron Lycoming Service Instruction No. 1267C.

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 THIS DOCUMENT TO SPECIFIC GROUPS OR INDIVIDUALS
 IS AUTHORIZED ONLY BY MEANS OF A LETTER OF
 AUTHORIZATION SIGNED BY THE PRESIDENT OF RAM

			
TITLE: PARTS MANUAL SUPPLEMENT FOR LYCOMING O-320-E2D ENGINE AS MODIFIED PER STC SE3692SW		DWG. NO. 1424	REV. B
BY: S. JOHNSON	SCALE: NONE	CHKD: <i>gmy</i>	DATE: JUN. 25, 2004
		PAGE: 1 OF 1	