



September 22, 2010

Seaplane Services Inc.
6980 Lake Dr.
Lino Lakes, MN. 55014

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 172I, Engine S/N:
L-21974-27A, Aircraft Serial No. 17257157, Registration No.
N46287.

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

Sincerely,

A handwritten signature in black ink that reads "Tommy Derrick".

Tommy Derrick
QC Inspector

Supplemental Type Certificate

Number SE3692SW-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 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.

The installer must determine whether this design change is compatible with previously approved modifications. 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; February 20, 2008;
September 5, 2008

Date of issuance: November 26, 1986

Date amended:



By direction of the Administrator

Terry L. Bowden
(Signature)

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

(Title)

United States Of America
Department of Transportation - Federal Aviation Administration
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 herein 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 0-320-D2G, 0-320-D2J, or 0-320-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 0-320-D2G, 0-320-D2J, or 0-320-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 0-320-D2G, 0-320-D2J or 0-320-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 of issuance: November 01, 1976

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

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 DAS-700100-SW
RAM Aircraft LP 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.

Supplemental Type Certificate

(Continuation Sheet)

Number SA2375SW-D

Date of Issuance: November 01, 1976

Amended Date: August 28, 1987

Reissuance Date: August 25, 2008

Limitations and Conditions (Continued):

1. The following appropriate FAA Approved Manual is required:

Cessna Models	Airport Flight Manual for Landplane with Lycoming O-320-D2G engine	Airplane Supplemental Flight Manual for Landplane of Floatplane with Lycoming O-320-D2G engine	Airplane Supplemental Flight Manual for Landplane or Floatplane with Lycoming O-320-D2J engine or O-320-E2D (as modified by STC SE3692SW-D)
172I, 172K 172L, 172M	November 1, 1976 or June 10, 1977 or March 30, 1978	January 26, 1979 or May 1, 1981	November 5, 1981 or August 27, 1987
172D, 172E 172F, 172G, 172H	June 9, 1977 or March 29, 1978	January 25, 1979 or April 30, 1981	November 5, 1981 or August 27, 1987
172N	Not required	Not required	Not required

2. For additional limitations see the applicable flight manual listed above.

3. 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.

-END-

~~RAM~~

AIRCRAFT CORPORATION

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 172I

REGISTRATION NUMBER N46287

SERIAL NUMBER 17257157

~~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:

Alanness

for

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

AUG 27 1987

Date: _____

STC No. SA2375SW

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AIRCRAFT CORPORATION

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

SUPPLEMENTAL FLIGHT MANUAL

I. 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 (Seaplane Only) Static RPM at maximum throttle setting:
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.

F. A. A. APPROVED: _____

AUG 27 1987

STC No. SA2375SW



AIRCRAFT CORPORATION

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

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