United States of America

Department of Transportation — Federal Aviation Administration

Supplemental Type Certificate

Number SE5177NM

This certificate, issued to Ritter Cams, Inc.

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 Aviation *Regulations.*

Original Product — Type Certificate Number: E5CE

Make: Teledyne-Continental

Model: IO-520-B, IO-520-BA, and IO-520-BB

Description of Type Design Change: Continental Part Number (P/N) 629726A3, camshaft for the engine models listed above is being replaced with a camshaft, P/N 32122-2, manufactured in accordance with Ritter Cams, Inc., Master Drawing No. R1773, Revision 2, dated November 20, 1987, or later FAA approved revisions.

Limitations and Conditions: Approval of this change in type design applies specifically to the above engine models only. This approval should not be extended to other engines of these models 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, including changes in type design, will introduce no adverse effect upon the airworthiness of these engines. A copy of this certificate shall be maintained as part of the permanent records for the modified engine.

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: February 26, 1990

Date of issuance: September 11, 1991

Date reissued:

Date amended: February 27, 1992

By direction of the Administrator

(Signature)

Assistant Manager, Seattle Aircraft Certification Office, ANM-101S

(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 (10-68)

FEB 27 1992

United States of America
Department of Transportation—Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number SE5177NM

Applicability of the Design Change:

The following engine model are eligible to use a camshaft, P/N 32122-2, manufactured in accordance with Ritter Cams, Inc., Master Drawing No. R1773, Revision 2, in place of Continental P/N 629726A3.

Engine Model	Type Cert No.	Certification Basis Effective Date
IO-520-B IO-520-BA IO-520-BB	E5CE	CAR 13 June 15, 1956

Installation of engine modified per this STC is limited to the following aircraft:

Airplane Model	Type Cert No.	Certification Basis Effective Date
Navion Basic Navion A, B, D, E, F, & G	A-782	CAR 3 November 13, 1945

The type of propeller approved for this installation is:

McCauley Model 3A32C-406-C (hub) with 6-82NDB-2 (blades)

This propeller may be installed only on engines that have one 4th. order and three 6th. order crankshaft dampers.

NOTE: Installation of the Teledyne-Continental Engines listed above on the Navion, Navion A, Navion B, Navion D, Navion E, Navion F, and Navion G may be accomplished only on airplanes that have been modified to accept Teledyne-Continental Model IO-520-B engines. This modification should have been accomplished in accordance with Data Sheet A-782.

- END -

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

FAA FORM 8110-2-1 (10-69)

This certificate may be transferred in accordance with FAR 21.47.