United States of America

Department of Transportation—Federal Aviation Administration

Supplemental Type Certificate

Number SA1231NW

This certificate issued to Steven L. Knopp

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*, November 1, 1949, and amendments 3-1 through 3-8.

Original Product—Type Certificate Number: 5A6

Make: Cessna

Model: 180

Description of Type Design Change: Installation of a Continental 0-470-R engine, McCauley 2A36C29A/90M-8 propeller and associated systems in accordance with Steven L. Knopp photographs 1 through 5.

Limitations and Conditions: Data pertaining to this modification are considered inadequate for duplication in other aircraft. This approval is limited to the installation in Cessna 180, Serial Number 31348 only. A copy of this Certificate and Addendum No. SA1231NW shall be maintained as part of the permanent records for the modified aircraft.

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: March 18, 1981

Date of issuance: May 13, 1981

Date reissued:

Date amended:

By direction of the Administrator

Charles C Schroeder

Signature

Acting Chief, Seattle Area 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.

FAA Form 8110-2 (10-68)

United States of America

Department of Transportation—Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

May 13, 1981 *Number* SA1231NW

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA1231NW

The conditions and limitations of Type Certificate Data Sheet Number 5A6 apply except where superseded by the following:

This Supplemental Type Certificate Data Sheet, which is part of STC SA1231NW, prescribes the conditions and limitations under which the product for which the STC was issued meets the airworthiness requirements of the Civil Air Regulations.

SUPPLEMENTAL TYPE CERTIFICATE HOLDER: Steven L. Knopp

CESSNA MODEL 180, 4PCL-SM, (NORMAL CATEGORY) AS MODIFIED BY STC SA1231NW

Engine:	Continental 0-470-R
Fuel:	80/87 octane minimum grade aviation gasoline
Engine Limits:	For all operations, 2600 rpm (230 Hp)
Propeller and Propeller Limits:	McCauley 2A36C29A/90M-8 Diameter: 82" maximum; 80" minimum Pitch Setting: 10.5° Low; 22.0° High Governor: See Type Certificate Data Sheet 5A6
Powerplant Instrument Markings:	Oil Temperature and Pressure: Green Arc 120° to 225°F - normal operating range Yellow Arc 30 to 60 psi - normal operating range Red Line 10 psi minimum, 100 psi maximum Tachometer: Green Arc 500 to 2600 rpm - normal operating range Red Line 2600 rpm - maximum Fuel Flow: Green Arc 0 to 25 gph - normal operating range Cylinder Head Temperature: Green Arc 200° to 460°F - normal operating range Red Line 460°F - maximum
C. G. Range:	See Type Certificate Data Sheet 5A6
Maximum Weight:	2550 pounds
Serial Number Eligible:	31348 only

- 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.*

C FAA AC 73-2651