

STC  
8K

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

*Number* SA517NW

*This certificate, issued to* GEORGE PERKS

*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, as Amended by 3-1 Through 3-12*

*Original Product — Type Certificate Number:* 3A12  
*Make:* Cessna  
*Model:* 172K

*Description of Type Design Change:* Installation of a Lycoming O-320-D2G engine (160 HP @ 2700 rpm), McCauley 1C172/MTM7653 propeller, and associated systems in accordance with George Perks photographs 1 through 3.

NOTE: This is a replacement of a O-320-E2D rated at 150 HP @ 2700 rpm.

*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 172 K, Serial Number 17257390 only. A copy of this Certificate and Addendum SA517NW 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:* July 7, 1977

*Date reissued:*

*Date of issuance:* November 18, 1977

*Date amended:*



*By direction of the Administrator*  
*Charles Schroeder*  
(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.

United States of America  
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**Supplemental Type Certificate**  
(Continuation Sheet) NOV 18 1977

*Number* SA517NW

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA517NW

The conditions and limitations of the original specification apply except as follows:

This Addendum, which is part of the Supplemental Type Certificate No. SA517NW prescribes conditions and limitations under which the STC was issued and meets the airworthiness requirements of Civil Air Regulation 3.

SUPPLEMENTAL TYPE CERTIFICATE HOLDER: George Perks

I. CESSNA MODEL 172K, 4PCLM (NORMAL CATEGORY) AS MODIFIED BY STC SA517NW

Engine: Lycoming O-320-D2G

Fuel: 91/96 or 100/130 minimum grade aviation gasoline

Engine Limits: Take Off (5 Min.) 2700 rpm (160 HP) @ Sea Level  
Maximum Continuous Power - 2500 rpm

Propeller Limits: McCauley 1C172/MTM7653  
Diameter: 76" maximum; 74" minimum  
Static Limits: maximum 2360 rpm  
minimum 2260 rpm  
Placards: None

C. G. Range: (+38.5) to (+47.3) at 2300 lbs.

Maximum Weight: 2300 lbs.

Datum: Lower Front Face of Firewall

Oil Capacity: 8 Quarts

Instrument Markings: Oil Temperature:  
245° F Oil Inlet (Red Line)  
Oil Pressure:  
60 - 90 psi (Green Arc)  
Cylinder Head Temperature:  
500° F Bayonet Thermocouples (Red Line)

Serial Number Eligible: 1725739 Only

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STC SA517NW

NOTE 1: Current weight and balance report including list of equipment in the certified empty weight must be in the aircraft.

NOTE 2: In addition to the Placards and Markings required by Type Certificate Data Sheet 3A12, Note 2, apply the following:

a. Adjacent to fuel filler cap:

CAUTION - USE 100/130 OCTANE  
FUEL OR HIGHER ONLY

b. Adjacent to or in close proximity to the aircraft identification plate:

LYCOMING O-320-D2G ENGINE  
INSTALLATION, STC SA517NW

c. The following placard is to be in front and in full view of the pilot:

ENGINE LIMITS

TAKE OFF (5 MIN.) - 2700 RPM  
MAXIMUM CONTINUOUS POWER - 2500 RPM

NOTE 3: With the described engine and propeller installation, performance will be at least equal or better than that given in the original FAA Approved Flight Manuals for the Cessna 172 K airplane.

- END -