United States of America

Department of Transportation—Federal Aviation Administration

# Supplemental Type Certificate

## (Continuation Sheet)

*Number* SE792NW

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SE792NW

The conditions and limitations of Type Certificate Data Sheet E-223 apply except where superseded by the following:

This Supplemental Type Certificate Data Sheet, which is part of STC SE792NW, 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: Kennis B. Blackman

| | |
|---|---|
| Engine: | Lycoming O-235-L2C (Modified) /-L2A (Modified) |
| Fuel: | 100/130 minimum grade aviation gasoline |
| Engine Limits: | For all operations, 2800 rpm (125 Hp) |
| Compression Ratio: | 9.7:1 |
| Placards: | Placards and Operating Limitations on Type Certificate Data Sheet E-223 apply except as noted herein: |

a. Original Engine Data Plate:

Add a "suffix" (M) and the STC number to the model designation as follows:

| MODEL: O-235-L2C(M) STC SE792NW |
|---|

b. Supplemental Engine Data Plate:

Install a Supplemental Data Plate adjacent to the original Data Plate to read as follows:

| AVCO LYCOMING ENGINE<br>SUPPLEMENTAL DATA PLATE<br>STC SE 792NW<br><br>- TAKEOFF (5 MIN) 125 HP @ 2800 RPM<br>- NORMAL RATED 125 HP @ 2800 RPM<br><br>SPARK ADVANCE - 25° BTC |
|---|

- END -

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STC no. SA1000NW

**KENNIS G. BLACKMAN**

**FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT**

**TO**

**CESSNA MODELS 152 AND 152A**

**FAA APPROVED AIRPLANE FLIGHT MANUAL**

The information in this document is FAA approved material which, together with the appropriate basic CAA/FAA Approved Airplane Flight Manual, is applicable and must be carried in the basic manual when the airplane is modified by the installation of a Lycoming O-235-L2C(M) engine and a McCauley 1A103/TCM 6958 propeller in accordance with Supplemental Type Certificate (STC) SA1000NW.

The information in this document supersedes the basic manual only where covered in the items contained herein. For Limitations, Procedures, and Performance not contained in this supplement, consult the basic manual.

FAA Approved: William B Ashworth
Manager, Seattle Aircraft
Certification Office

Date: August 18, 1980
Reissued: June 12, 1986

## I. LIMITATIONS

Engine Limits: Lycoming O-235-L2C(M) (STC SE792NW)
Rated RPM: 2550 RPM (118 Hp) for all Operations (See Placards).

Propeller: McCauley 1A103/TCM 6958
Diameter: 69" Maximum; 67.5" Minimum
Static RPM: 2380 Maximum; 2280 Minimum
NO ADDITIONAL TOLERANCE PERMITTED

C. G. Range: (+32.65) to (+36.5) at 1670 Pounds
(+31.0 ) to (36.5 ) at 1350 Pounds

Placards:

| MAXIMUM CONTINUOUS OPERATION<br>2550 RPM |
|---|

Cessna Model 152

| AIRSPEED LIMITS<br>Vc: 111 KIAS<br>Vne: 149 KIAS |
|---|

OR

Cessna Model A152

| AIRSPEED LIMITS<br>Vc: 125 KIAS<br>Vne: 172 KIAS |
|---|

## II. PROCEDURES

No Change

## III. PERFORMANCE

Performance with the above engine and propeller combination installed is equal to or better than the data in the FAA Approved Airplane Flight Manual.

FAA Approved
Date: August 18, 1980
Reissued: June 12, 1986

# SUPPLEMENTAL TYPE CERTIFICATE DATA

## STC SA1000NW

## Supplement to Cessna C-152 / A-152 Pilots Operating Handbook

1. This aircraft has been modified by increasing the horsepower of the engine through raising the compression ratio (and maximum continuous RPM limitation with Sensenich Propeller installed).

2. The performance of this aircraft will equal, or exceed, the figures given in the standard Pilot Operating Handbook.

3. All individual airplanes will differ, slightly, in performance. It is advisable for the pilot to compare given figures with actual experienced performance prior to any operations which would allow little or no safety margin.

4. The increased compression ratio causes the engine to be more susceptible to detonation. For this reason, follow the following procedures closely:

   A. If 80/87 octane fuel is inadvertantly pumped into this aircraft, DO NOT operate engine. Drain ALL contaminated fuel and completely fill tanks with proper fuel, minimum 100 octane, prior to starting engine.
   B. Avoid prolonged steep climbs (below 75 knots IAS) of more than three minutes duration unless all cylinders can be monitored for cylinder head temperature. If CHT is installed, identify the "Hottest Cylinder" in climb AND cruise, moniter that cylinder during each phase of operation.
   C. If detonation is suspected, immediately reduce power and lessen the climb angle. Richen the fuel/air mixture ratio and gradually increase power.
   D. Follow Lycoming recommended procedure for leaning of mixture during all phases of operation.

5. Maximum cylinder head temperature is 500° F. although many CHT indicators have a "red line" beginning at 450° F. It is not advisable to operate above 450° F. for extended periods, therefore it is recommended that the guage not be remarked and the pilot observe this as a guideline for safe operation.

6. Avoid sudden radical power changes which cause rapid rises and drops in cylinder head temperature. Increasing and reducing power slowly reduces the possibility of engine damage or engine failure.

Revised - August 24, 1981