

F.A.A. APPROVED
Supplemental Airplane Flight Manual
or
Airplane Flight Manual Supplement

FOR CESSNA 182E, F, G, H, J, K, L, M, N, P, R, and Q

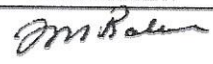
Registration Number _____
Serial Number _____

The information contained in this document is FAA Approved material, which along with the FAA Approved Airplane Flight Manual (if required), placards and instrument markings, is applicable to the operation of the airplane when the Continental IO-470-F engine and McCauley propeller model 2A34C50/90A-8, 2A34C66/90AT-8, D2A34C58/90AT-8, or Hartzell propeller model BHC-G2YF-1BF/F8468A-2R and spinner assembly D-4798A are installed in accordance with STC SA3825SW. The information contained herein supplements or supersedes the basic manual only in those areas outlined herein. For limitations, procedures, and performance information not contained in this document, consult the applicable Airplane Flight Manual, Pilot's Operating Handbook, or Information Manual.

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Wichita Kansas

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LOG OF REVISIONS

Rev. No.	Pages	Description	Date	Approved
Orig	All	Initial Release	August 12, 1987	A.C. Caviness for L.B. Andersen
A	All	Revised all pages to new format, added Hartzell propeller model BHC- G2YF-1BF/F8468A-2R and spinner, 23" Hg MAP limitation for the Hartzell propeller and associated placard.	March 30, 2006	

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I. LIMITATIONS

A. Engine Limits: 182N and 182P

Takeoff: 2600 RPM, 259 HP

Max Continuous: 2600 RPM, 26.3" Hg MAP, 230 HP

Fuel: 100/130 minimum octane aviation gasoline

182Q and 182R

Takeoff: 2625 RPM, 260 HP

Max Continuous: 2400 RPM, 27.3" Hg MAP, 230 HP

Fuel: 100/130 minimum octane aviation gasoline

B. Propeller:

McCauley Model 2A34C50/90A-8

McCauley Model 2A34C66/90AT-8

Pitch setting at reference station 36

Low: 10.5 High: 22

Diameter: not over 82", not under 80"

McCauley Model D2A34C58/90AT-8

Pitch setting at reference station 36

Low: 9.2 High: 22

Diameter: not over 82", not under 80.5"

Hartzell Model BHC-G2YF-1BF/F8468A-2R

Spinner Assembly D-4798P

Pitch setting at reference station 36

Low: 13.0 $\pm$ 0.2 High: 31.0 $\pm$ 1.0

Diameter: not over 82", not under 80"

- Do not exceed 23" manifold pressure below 2300 RPM with the installation of the Hartzell propeller.
- For continued airworthiness, required inspections, maintenance, and installation instructions, refer to Hartzell Propeller Owner's Manual, FAA approved Manual No. 115N.

C. Powerplant Instruments:

Tachourmeter 182N and 182P

Green Arc: 2200 to 2450 RPM

Yellow Arc: 2450 to 2600 RPM

Red Line: 2600 RPM

Tachourmeter 182Q and 182R

Green Arc (normal operating range): 2200 to 2400 RPM

Red Line (maximum): 2625 RPM

Manifold Pressure

Green Arc (normal operating range): 15 to 25 inches Hg

II. PROCEDURES

In operating your Cessna 182 with the IO-470 engine, you will need to be aware of the fact that the fuel to the engine is no longer gravity fed. As with all fuel-injected engines, there is an engine-driven fuel pump and an emergency electric auxiliary pump. The auxiliary boost pump is to be used to prime the engine for starting and as an emergency fuel pump should the engine-driven pump fail. Do not turn on the auxiliary boost pump during normal operation as the fuel/air ratio will be considerably richer than that required for efficient operation.

The auxiliary boost pump is connected to the throttle through a microswitch that senses throttle position. In an emergency when the auxiliary boost pump is being used and the throttle is retarded to 16 inches of manifold pressure or less, the microswitch will automatically reduce the boost pump's output to prevent an excessively rich mixture.

The auxiliary boost pump should not be used during normal takeoff, climb, or approach. It is for an emergency backup only.

FUEL SYSTEM

The Cessna 182 fuel system has been modified to include the installation of an accumulator tank between the fuel selector and the gascolator. Vapors and excess fuel from the engine-driven fuel pump and fuel control unit are returned through the accumulator tank to the right wing fuel tank.

USE ONLY 100 OCTANE FUEL IN THIS ENGINE.

ALTERNATE AIR

The fuel injection system employed on this engine is considered to be non-icing. In the event that unusual conditions cause the intake air filter to become clogged or iced over, an alternate intake air valve opens automatically for the most efficient use of either normal or alternate air, depending on the amount of filter blockage.

STARTING THE ENGINE

Proper fuel management and throttle adjustments are the determining factors in securing an easy start from your continuous flow fuel-injected engine.

Conventional full-rich mixture and high RPM propeller settings are used for starting. The throttle, however, should be fully closed initially. When ready to start, the normal starting procedure should be used with these exceptions. After the master switch is turned on, the auxiliary boost pump should be momentarily turned on and the throttle advanced to provide priming for the engine. Retard the throttle and turn the auxiliary boost pump switch off. Turn the ignition switch to the start position.

STARTING THE ENGINE (Cont'd)

Engine starting in hot weather or with a hot engine is sometimes hampered by vapor formation in the fuel lines. A normal hot start is accomplished with the mixture full rich and the throttle retarded. Do not use the auxiliary boost pump. After the engine starts, it is sometimes necessary to *momentarily* turn the auxiliary boost pump on to help prime the engine and purge any remaining vapor. If engine starting is hampered by vapor formation, purge the vapor by moving the mixture control to full rich, open the throttle 1 ½" to 2" and prime with the auxiliary boost pump until the indicator reads 3-4 g.p.h. At this point, shut off the auxiliary boost pump and engage the starter. As the flooded mixture becomes progressively leaner reaching a combustible mixture, the engine will start. If the engine tends to die, turn the auxiliary boost pump switch on momentarily at appropriate intervals until the vapor is fully cleared and the engine runs smoothly.

If prolonged cranking is necessary, allow the starter motor to cool at frequent intervals.

The *Cessna Owner's Manual* and applicable instrument panel placards should be used for all other operations.

III. CRUISE

Do not exceed 23" manifold pressure below 2300 RPM with the installation of the Hartzell propeller.

IV. PERFORMANCE

The performance of this airplane equipped with the Continental IO-470-F engine and McCauley propeller model 2A34C50/90A, 2A34C66/90AT-8, D2A34C58/90AT-8, or Hartzell propeller model BHC-G2YF-1BF/F8468A-2R is equal to or better than the performance as listed in the original flight manual.