



FAA APPROVED Airplane Flight Manual Supplement

FOR

MODELS	SERIALS
T303	T30300001 thru T30300315
310	310R1501 thru 310R2140
335	335-0001 thru 335-0065
340	340A0601 thru 340A1817
401	401-0001 thru 401B0221
402	402-0001 thru 402C1020
404	404-0001 thru 404-0859
411	411-0001 thru 411A0300
414	414-0001 thru 414A1212
421	421-0001 thru 421C1807

Serial No. _____
Registration No. _____

This supplement must be attached to the FAA Approved Airplane Flight Manual or Pilot's Operating Handbook/FAA Approved Airplane Flight Manual when the Auxiliary Fuel Pump Switching System is installed in accordance with Cessna Multi-Engine Service Bulletin MEB88-3.

The information contained herein supplements or supersedes the information of the basic Airplane Flight Manual or Pilot's Operating Handbook/FAA Approved Airplane Flight Manual and all Checklists. For limitations, procedures, and performance information not contained in this supplement, consult the basic Airplane Flight Manual or Pilot's Operating Handbook/FAA Approved Airplane Flight Manual.

FAA APPROVED

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SECTION 1 GENERAL

AUXILIARY FUEL PUMP SWITCHING SYSTEM

To improve the reliability of the auxiliary fuel pump systems in Cessna conventional twin-engine airplanes (except Model 310 airplanes prior to Model 310C which are not affected by this change), the automatic fuel pressure sensing switch and auxiliary fuel pump switch for each engine have been removed and replaced with new three-position, lever lock, toggle-type auxiliary fuel pump switches and circuitry. This modification provides direct pilot control of the output pressure of the two auxiliary fuel pumps. The switches are labeled AUX PUMP, L (left engine) and R (right engine) and switch positions are LOW, OFF, and HIGH. The LOW position operates the auxiliary pumps at low speed and can be used, when required, to provide supplementary fuel pressure for all normal operations. The switches are OFF in the middle position. The HIGH position is reserved for emergency operation, and operates the pumps at high speed. The HIGH position supplies sufficient fuel flow to sustain partial engine power in the event of an engine-driven fuel pump failure. The switches are locked out of the HIGH position and the switch toggle must be pulled out to clear a detent before it can be moved to the HIGH setting. The toggle need not be pulled to return the switch to OFF.

In Models 340A, 414, 421, 421A and 421B, additional fuel tank selector logic is added to activate the auxiliary fuel tank system in-line fuel pumps when the auxiliary fuel tanks are selected, thereby making the auxiliary tank in-line pump operation independent of the auxiliary fuel pump switches.

SWITCH OPERATION

Operation of the new switching system is simple and straightforward. The new LOW position of the auxiliary fuel pump switches should be used whenever an original manual/handbook or checklist procedure specifies either LOW (PRIME in early 310 or 320 airplanes) or ON. The LOW position is also used anytime there are indications of vapor, as evidenced by a "nervous" fuel flow needle. Auxiliary fuel pumps, if needed, are to be operated on LOW in all conditions except when an engine-driven fuel pump fails.

The new HIGH position supplies sufficient fuel flow to sustain partial engine power and should be used solely to sustain the operation of an engine in the event its engine-driven fuel pump fails. Failure of an engine-driven fuel pump will be evidenced by a sudden reduction in the fuel flow indication **immediately prior to a loss of power** while operating from a fuel tank containing adequate fuel. In an emergency where loss of an engine-driven fuel pump is involved, pull out on the applicable auxiliary fuel pump switch to clear the detent and select the HIGH position. Then adjust the throttle and mixture controls to obtain sat-

isfactory operation. At high manifold pressure and RPM, auxiliary fuel pump output may not be sufficient for normal engine operation. In this case, reduce manifold pressure to a level compatible with the indicated fuel flow. At low powers, the mixture may have to be leaned as necessary for smooth engine operation. If HIGH auxiliary pump output does not restore adequate fuel flow, a fuel leak may exist and the auxiliary pump should be shut off, the engine secured and propeller feathered, and the flight terminated on the remaining engine.

On rare occasions, such as during engine starting in cold weather, the HIGH position (instead of LOW) may be needed for a few seconds to ensure a good ground start or restart in flight.

 CAUTION

If the auxiliary fuel pump switches are placed in the HIGH position with the engine-driven fuel pump(s) operating normally, total loss of engine power may occur.

When performing training in single-engine operations, the auxiliary fuel pump of the engine to be shutdown should be turned OFF (if it was on LOW) prior to any simulated engine failure or prior to any intentional engine shutdown to preclude fuel accumulation in the engine intake system.

The following limitations and procedures apply only to the operational changes of the auxiliary fuel pump switches and not the entire procedure.

SECTION 2 LIMITATIONS

The following new placard is provided to identify that the airplane has been modified and show the proper switch positions for normal operation. It is located on the left cabin sidewall near the auxiliary fuel pump switches and must be installed when the airplane is modified in accordance with Cessna Multi-Engine Service Bulletin MEB88-3.

THE AUXILIARY FUEL PUMP
SYSTEMS IN THIS AIRPLANE
HAVE BEEN MODIFIED BY
SERVICE BULLETIN MEB88-3.

AUX PUMP LOW FOR TAKEOFF,
LANDING AND VAPOR CLEARING.
AUX PUMP HIGH FOR ENGINE
DRIVEN PUMP FAILURE
(VERY LOW OR NO FUEL PRESS).
SEE POH OR AFM SUPPLEMENT
OR SUPPLEMENTAL AFM.

2505059-8

The following additional placard is provided to overlay an existing placard (if installed) near the fuel selector.

TAKEOFF AND LAND WITH
AUXILIARY FUEL PUMPS LOW.
2505053-4

SECTION 3
EMERGENCY PROCEDURES
ENGINE FAILURE DURING FLIGHT
BEFORE SECURING INOPERATIVE ENGINE

Fuel Flow - CHECK. If deficient, position auxiliary fuel pump to HIGH.

IF ENGINE DOES NOT START

Operative Engine - Auxiliary Fuel Pump LOW.

ENGINE INOPERATIVE LANDING

Operative Engine - Auxiliary Fuel Pump LOW.

ENGINE-DRIVEN FUEL PUMP FAILURE

Auxiliary Fuel Pump - HIGH.

AIRSTART

Auxiliary Fuel Pump - CHECK OFF. If on LOW or HIGH, purge engine.

SECTION 4 NORMAL PROCEDURES

BEFORE TAKEOFF

Auxiliary Fuel Pumps - LOW.

AFTER TAKEOFF, CLIMB OR LOW ALTITUDE CRUISE

Auxiliary Fuel Pumps - OFF (LOW if necessary to suppress vapor).

CRUISE (Above 12,000 Feet)

Auxiliary Fuel Pumps - LOW for 5 minutes after leveling off to suppress vapor tendencies.

DESCENT

Auxiliary Fuel Pumps - LOW.

BEFORE LANDING

Auxiliary Fuel Pumps - LOW.

AFTER LANDING

Auxiliary Fuel Pumps - OFF (LOW if necessary to suppress vapor).

PRACTICE SINGLE ENGINE PROCEDURES

Auxiliary Fuel Pumps - OFF.

SWITCHING FUEL TANKS

Auxiliary Fuel Pumps - LOW.

SECTION 5

PERFORMANCE

There is no change in airplane performance with the auxiliary fuel pump switching system modification.