

FLINT AERO, INC.
1942 Joe Crosson Drive
El Cajon, CA 92020
Doc No.: FTC453.001

**FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT
TO THE
OFFICIAL PILOT'S OPERATING HANDBOOK AND
FAA APPROVED AIRPLANE FLIGHT MANUAL
AND
SUPPLEMENTAL AIRPLANE FLIGHT MANUAL
FOR
CESSNA 170, 172, and 175 AIRPLANES
WITH
FLINT AERO AUXILIARY FUEL TANKS**

The information in this document is FAA approved material and must be attached to the FAA Approved Airplane Flight Manual or carried in the airplane if the airplane does not have an FAA approved Airplane Flight Manual when the airplane has been modified by the installation of the Flint Aero Auxiliary Fuel Tanks in accordance with STC SA1614WE.

This document is applicable to the Official Pilot's Operating Handbook and FAA Approved Airplane Flight Manual for those Cessna airplanes which require the manual, and to the basic placards and markings for those airplanes without a manual. The following airplanes are included when Flint Aero, Inc. Auxiliary Fuel Tanks have been installed, and this document is applicable to the below model landplanes, ski planes, and floatplanes:

TC A-799: 170A, 170B
TC 3A12: 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H,
172I, 172K, 172L, 172M, 172N, 172P, 172Q, 172R, 172S
TC A4EU: * F172F, F172G, F172H, F172K, F172L, F172M, F172N
TC A18EU: * FR172E, FR172F, FR172G, FR172H, FR172J, FR172K
TC 3A17: 175, 175A, 175B, 175C, R172K, 172RG, R172E

* Reims Aviation S.A. Cessna Models

The information contained herein appends, supplements, or supersedes the Official Pilot's Operating Handbook and FAA Approved Airplane Flight Manual or the basic placards and markings for Cessna 170, 172 and 175 series airplanes only in those areas listed herein. For limitations, procedures, and performance information not contained in this document, consult the Official Pilot's Operating Handbook and FAA Approved Airplane Flight Manual, or the basic placards and markings for the specific Cessna 170, 172 or 175 series airplanes.

FAA Approved



Ady Manager, Flight Test Branch, ANM-160L
Federal Aviation Administration
Los Angeles Aircraft Certification Office
Transport Airplane Directorate

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AFMS for Cessna Model 170, 172, 175 series with
Flint Aero, Inc. STC SA1614WE
Auxiliary Fuel Tanks

LOG OF PAGES

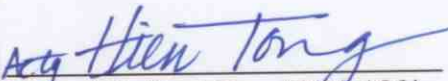
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SECTION I – GENERAL

This Flint Aero, Inc. Supplement to the Official Pilot's Operating Handbook and FAA Approved Airplane Flight Manual or the basic placards and markings for Cessna 170, 172 175 series airplanes addresses operations when modified by installation of Flint Aero Auxiliary Fuel Tanks in accordance with STC SA1614WE. New performance data are included herein. The changes to the Performance Specifications are shown in Table 1-1 below.

Table 1-1

PERFORMANCE SPECIFICATIONS WITH INTERNAL AUXILIARY TANKS			
SPEED	Maximum (V_{NO})		No Change
	Max Cruise Power – Standard Day Conditions		No Change
CRUISE	With fuel allowance for engine start, taxi, takeoff, climb and 45 minutes reserve.		
	Additional range and endurance for Basic Airplane set in Cruise Power range @10,000 ft with 23 Gal usable auxiliary fuel.	Range	292 NM
		Time	2.3 Hrs.
CLIMB	Sea Level Std Day Rate of Climb		No Change
	Service Ceiling		No Change
TAKEOFF	Sea Level Std Day Ground Roll		No Change
	Total Distance Over 50 Ft. Obstacle		No Change
LANDING	Sea Level Std Day Ground Roll		No Change
	Total Distance Over 50 Ft. Obstacle		No Change
STALL	Flaps Up, Power Off		No Change
	Flaps Down, Power Off		No Change
MAXIMUM WEIGHT	Ramp		No Change
	Takeoff		No Change
	Landing		No Change
STANDARD EMPTY WEIGHT – Basic airplane plus			40 LBS
MAXIMUM USEFUL LOAD – Basic airplane minus			40 LBS
BAGGAGE ALLOWANCE (See applicable POH)			No Change
WING LOADING: lbs./Sq. Ft.			No Change
POWER LOADING lbs./HP			No Change
FUEL CAPACITY Basic airplane plus 23 usable US gal Aux Fuel			23 GAL
OIL CAPACITY			No Change.
ENGINE:			No Change
PROPELLER:			No Change

The above performance figures are based on fuel consumption values published in the Official Pilot's Operating Handbook and FAA Approved Airplane Flight Manual or the basic placards and markings for Cessna 170, 172, 175 series airplanes and will vary with individual airplanes and numerous factors affecting flight performance.

SECTION II – LIMITATIONS

1. Airspeed Limitations

No Change

2. Airspeed Indicator Markings

No Change

3. Power Plant Instrument Markings

The following entry is added to the Powerplant Instrument Markings Table:

Power plant markings and their color-code significance.

INSTRUMENT	RED LINE (MINIMUM)	GREEN ARC (NORMAL OPERATING)	RED LINE (MAX)
Auxiliary Fuel Tank	E		
Quantity Indicators	(0.5 U.S. Gal. Unusable Each Tank)	-----	-----

4. Weight Limits

No change. Refer to current weight and balance documents.

5. Center of Gravity Limits

No change

6. Maneuver Limits

No change

7. Flight Load Factor Limits

No change

8. Kinds of Operations Limits

No change

9. Fuel Limitations

Fuel capacity is increased to the values in Tables 1-2 and 1-3 below:

Table 1-2

FUEL CAPACITY, U.S. GALLONS											
CESSNA MODELS	172										
	R,S	Q	N,P	I,K,L,M	C,D,E,F,G,H	B	172, A	P172D	R172K	172RG	R172E
Total Capacity	80	78	66	66	63	66	66	76	76	90	76
Total Usable	76	73	63	61	59	62	60	65	72	85	69
Total Capacity, Each Main Tank	28	27	21	21	19.5	21	21	26	26	33	26
Total Usable, Each Main Tank	26.5	25	20	19	18	19.5	18.5	21.3	24.5	31	23
Total Capacity, Each Aux Tank	12	12	12	12	12	12	12	12	12	12	12
Total Usable, Each Aux Tank	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5

Table 1-3

FUEL CAPACITY, U.S. GALLONS											
CESSNA MODELS	175				F172 (REIMS)			FR172 (REIMS)		170	
	175	175A	175B	175C	F,G,H	K,L,M	N,P	E,F,G,H,I,J	K	170A	170B
Total Capacity	76	76	76	76	63	66	67	76	76	42	42
Total Usable	66	65	65	65	59	61	63	69	72	37	37
Total Capacity, Each Main Tank	26	26	26	26	19.5	21	21.5	26	26	21	21
Total Usable, Each Main Tank	21.5	21	21	20.7	18	19	20	23	24.5	18.5	18.5
Total Capacity, Each Aux Tank	12	12	12	12	12	12	12	12	12	12	12
Total Usable, Each Aux Tank	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5

9.1 Auxiliary Fuel Tank Transfer Limits

- When feeding from either or both main tanks, do not transfer auxiliary tank fuel into a main fuel tank until it is at least 15.0 gallons below full.
- When feeding from either main tank, begin tank transfer into that tank before its level drops below five gallons remaining.
- Do not transfer auxiliary fuel unless in level flight.

