

FLINT AERO, INC.
1942 Joe Crosson Drive
El Cajon, CA 92020
Doc. No.: FTC453.002

**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 182 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 SA1758WE.

This document is applicable to the Official Pilot's Operating Handbook and FAA Approved Airplane Flight Manual for those Cessna 182 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 below model landplanes, ski planes, and floatplanes:

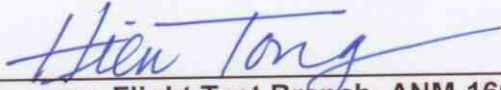
TC 3A13: 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, R182, TR182, 182R, T182, 182S, 182T, T182T

TC A43EU : * F182P
* 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 182 airplanes only in those areas listed herein. For limitations, procedures, and performance information not contained in this Appendix, consult the Official Pilot's Operating Handbook and FAA Approved Airplane Flight Manual for Cessna 182 airplanes or the basic placards and markings.

FAA Approved

Acty



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

Date: 5/8/06

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AFMS for Cessna Model 182 with
 Flint Aero, Inc. STC SA1758WE
 Auxiliary Fuel Tanks

LOG OF PAGES


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Original	Title Log	5/8/06 5/8/06	Complete Supplement	 Mgr., Flt. Test Br., ANM-160L, FAA, Los Angeles ACO, Transport Airplane Directorate Date <u>5/8/06</u>
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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 182 airplanes addresses the operation of the airplanes when modified by installation of Flint Aero Auxiliary Fuel Tanks in accordance with STC SA1758WE. 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 AUXILIARY TANKS			
SPEED	Maximum (V _{NO})		See Limitations
	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	264 NM
		Time	1.9 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 useable 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 182 and will vary with individual airplanes and numerous factors affecting flight performance.

SECTION II – LIMITATIONS

Airspeed Limitations

Model 182N:

Maneuvering: 128 MPH (111 KCAS)

Never Exceed: 193 MPH (168 KCAS)

Model 182P (S/N 675, 18260826 through 18264295):

Never Exceed: 193 MPH (168 KCAS)

Model 182P (S/N 18264296 and up; F182P, 182Q, 182R, T182, 182S, 182T, T182T)

Never Exceed: 172 KCAS

For Models TR182, T182, and T182T: "Reduce V_{ne} 5 MPH per 1,000 ft. above 18,000 ft."

Airspeed Indicator Markings

The airspeed indicator of models 182N and 182P (S/N 675, 18260826 through 18264295) are re-marked to show the top of the yellow arc and the red line at 193 MPH (168 KIAS).

The airspeed indicator of models 182P (S/N 18264296 and up; F182P, 182Q, 182R, T182, 182S, 182T, T182T) are re-marked to show the top of the yellow arc and the red line at 172 KIAS.

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)	-----	-----

Weight Limits

No change. Refer to current weight and balance documents.

Center of Gravity Limits

Aft CG limit is 45 in. AOD for Models 182E through 182R and T182 with fuel in aux tanks.

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Aft CG limit is 44 in. AOD for Models R182, TR 182, 182S, 182T, T182T with fuel in aux tanks.

Maneuver Limits

Model 182N Maneuvering speed: 128 MPH (111 KCAS)

Flight Load Factor Limits

No change

Kinds of Operations Limits

No change

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	182										
	182	A, B, C, D, E, F, G,	H, J, K, L, M, N, P	P	P	P	Q	R182	TR182	182R, T182, 182S, 182T	182T, T182T
Total Capacity	60	65	65	84	61	80	92	61	92	92	92
Total Usable	55	55	60	79	56	75	88	56	88	88	87
Total Capacity, Each Main Tank	30	32.5	32.5	42	30.5	40	46	30.5	46	46	46
Total Usable, Each Main Tank	27.5	27.5	30	39.5	28	37.5	44	28	44	44	43.5
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

Table 1-3

FUEL CAPACITY, U.S. GALLONS											
REIMS, SA MODELS	F182P										
Total Capacity	61										
Total Usable	56										
Total Capacity, Each Main Tank	30.5										
Total Usable, Each Main Tank	28										
Total Capacity, Each Aux Tank	12										
Total Usable, Each Aux Tank	11.5										

