Flight Manual Supplement Cessna 182 Series Aircraft FAA Approved STC SA00152WI

FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT

For CESSNA 182 Q Serial No. 18266591 to 18267715

> **DOCUMENT NO: 182051** Applicable to

N: 96607 Serial No.: 18 266782

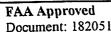
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The Supplement must be attached to the Pilots Operating Handbook and the FAA Approved Flight Manual when the airplane is modified in accordance with STC SA00152WI, which installs an IO-550-D 300 HP Continental Engine and a Hartzell 3 blade propeller. 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 supplement, consult the basic Airplane Flight Manual.

- 1. GENERAL
- 2. LIMITATIONS
- 3. EMERGENCY PROCEDURES
- 4. NORMAL PROCEDURES
- 5. PERFORMANCE
- WEIGHT AND BALANCE
- AIRPLANE SYSTEMS AND DESCRIPTION

FAA Approved: Kein D Campbell Ronald K. Rathgeber, Manager Wichita Aircraft Certification Office Federal Aviation Administration

Dated: $\frac{3/31/01}{}$



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SECTION 1. GENERAL

DESCRIPTIVE DATA

ENGINE

Engine Manufacture: Teledyne Continental

Engine Model No.: IO-550-D

Engine Type: Normally aspirated, direct drive,

aircooled, horizontally opposed, fuel injected six-cylinder engine with 550 cu. in.

displacement.

Horsepower rating and engine speed:

Maximum Power: 300 rated at 2700 RPM.

Maximum continuous Power: 300 rated BHP at 2700 RPM.

PROPELLER

Propeller Manufacture: Hartzell Propeller Inc. Propeller Model No.: PHC-L3YF-1RF/F7691

Number of Blades: 3.

Propeller Diameter: Maximum 78 inches

Minimum 77 inches

Propeller Type: Constant speed and hydraulically actuated with a low pitch

setting of 14.5° and a high pitch setting of 26.8°.

Or

Propeller Manufacturer: Hartzell Propeller Inc.

Propeller Model No.: PHC-G3YF-1RF/F8468A()-6R

Number of Blades: 3

Propeller Diameter: Maximum 80 inches

Minimum 78 inches

Propeller Type: Constant speed and hydraulically actuated with a low pitch setting of $13.2^{\circ} \pm 0.1^{\circ}$ and a high pitch setting of 31.0° (At 30 Inch Station).

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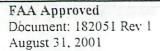
SECTION 2. LIMITATIONS

AIRSPEED	LIMIT	A	TI	ONS	1
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AIR SPEED INDICATOR MARKINGS

White Arc	41	- 95	KIAS
Green Arc	48 -	143	KIAS
Yellow Arc	. 143 -	179	KIAS
Red Line		179	KIAS





AIR PLAINS SERVICES, CORP. Wellington Airport

Wellington KS 67152

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SECTION 4. NORMAL PROCEDURES (Cont.) DESCENT

- (1) Power -- AS DESIRED.
- (2) Mixture -- ENRICHEN as required.
- (3) Cowl Flaps -- CLOSED.
- (4) Wing Flaps -- AS DESIRED (0° 10° below 140 KIAS, 10° 35° below 95 KIAS).

BEFORE LANDING

- (1) Seats, Belts, Shoulder Harnesses -- ADJUST and LOCK.
- (2) Fuel Selector -- BOTH.
- (3) Propeller -- HIGH RPM.
- (4) Cowl Flaps -- CLOSED.
- (5) Airspeed -- 70 80 KIAS (flaps UP).
- (6) Wing Flaps -- 0° 35° (below 95 KIAS).
- (7) Airspeed -- 60 70 KIAS (flaps DOWN).
- (8) Elevator and Rudder Trim -- ADJUST.

BALKED LANDING

- (1) Power -- FULL THROTTLE and 2700 RPM.
- (2) Wing Flaps -- RETRACT TO 20°.
- (3) Airspeed -- 70 KIAS.
- (4) Wing Flaps -- RETRACT slowly.
- (5) Cowl Flaps -- OPEN.

NOTE

Expect pitch control forces up to 75 lbs. until flaps are retracted and airplane is trimmed. NORMAL LANDING

- (1) Touchdown -- MAIN WHEELS FIRST.
- (2) Landing Roll -- LOWER NOSE WHEEL GENTLY.
- (3) Braking -- MINIMUM REQUIRED.

AFTER LANDING

- (1) Wing Flaps -- UP.
- (2) Cowl Flaps -- OPEN.

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SECTION 5. PERFORMANCE

AIRSPEED CALIBRATION NORMAL STATIC SOURCE

Flaps UI	2											
KIAS	50	60	70	80	90	100	110	120	130	140	150	160
KCAS	57	63	70	79	88	98	107	117	126	136	145	155
Flaps 20	<u>)°</u>											
KIAS	40	50	60	70	80	90	95					
KCAS	50	56	63	71	79	87	92					
Flaps 35	5°			19 6								
KIAS	40	50	60	70	80	90	95					
KCAS	50	57	64	71	79	88	92					

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SECTION 5. PERFORMANCE (Cont.)

STALL SPEEDS

Conditions

Power Off.

Weight 2950 lbs.

Notes:

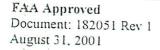
- 1. Maximum al'titude loss during a stall recovery is approximately 150 ft.
- 2. KIAS values are approximate.

MOST REARWARD CENTER OF GRAVITY Angle of Bank

Flap	0	0	30	0	45	•	60	0	
Setting	KIAS	KCAS	KIAS	KCAS			_	1.5	
UP	48	56	55	60	66	67	81	KCAS 79	
20°	43	52	49	56	58	62	74	74	
35°	39	50	46	54	55	60	70	71	

MOST FORWARD CENTER OF GRAVITY Angle of Bank

Flap		0°	30)°	4	.5°	6	0°
Setting		KCAS	KIAS	KCAS	KIAS	KCAS	U	KCAS
UP	48	56	55	60	66	67	81	79
20	43	52	49	56	58	62	74	74
35 _	41	51	48	55	56	61	71	72





Cruise power fuel flows to be used to determine fuel consumption and endurance.

Conditions
Standard day conditions
Recommended lean mixture

Note: Maximum fuel flow for 75% power at each altitude shown. Reduced power will result in reduced fuel flow.

ALTITUDE	RPM	MP	GPH
2000	2500	23	17.0
4000	2500	23	17.0
6000	2500	22	16.5
8000	2500	21	15.8
10000	2500	20	15.2
12000	2500	18	13.7

LANDING DISTANCE

With flap travel limited to 35 deg. maximum, expect 5% increase in landing distances. Increase approach speed by 1 KIAS.

