

SECTION II

LIMITATIONS

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**BEECHCRAFT Sundowner 180
C23 (M-1285 and After)**

**Section II
Limitations**

The limitations included in this section have been approved by the Federal Aviation Administration.

The following limitations must be observed in the operation of this airplane.

AIRSPEED LIMITATIONS

SPEED	CAS		IAS		REMARKS
	KNOTS	MPH	KNOTS	MPH	
Never Exceed V_{NE}	152	175	152	175	Do not exceed this speed in any operation
Maximum Structural Cruising V_{NO} or V_C	136	156	136	156	Do not exceed this speed except in smooth air and then only with caution
Maneuvering V_A	118	136	118	136	Do not make full or abrupt control movements above this speed
Maximum Flap Extension/ Extended V_{FE}	96	110	96	110	Do not extend flaps or operate with flaps extended above this speed

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***AIRSPEED INDICATOR MARKINGS**

MARK- ING	CAS		IAS		SIGNIF- ICANCE
	KTS	MPH	KTS	MPH	
White Arc	①52-96	60-110	52-96	60-110	Full Flap Operating Range
	②51-96	59-110	51-96	59-110	
Green Arc	①63-136	72-156	62-136	71-156	Normal Operating Range
	②62-136	71-156	61-136	70-156	
Yellow Arc	136-152	156-175	136-152	156-175	Operate With Caution, Only in Smooth Air
Red Line	152	175	152	175	Maximum Speed For All Operations

* The limits of the arcs on the airspeed indicator are marked in CAS values.

① M-1285 thru M-1586

② M-1587 and after

POWER PLANT LIMITATIONS

ENGINE

One Avco Lycoming engine model O-360-A2G, O-360-A4G, O-360-A4J or O-360-A4K engine rated at 180 hp.

Take-off and Maximum Continuous

Power Full Throttle at 2700 rpm

OPERATING LIMITATIONS

Engine Speed	2700 rpm
Oil Temperature	245°F
Oil Pressure	
Minimum	25 psi
Maximum	100 psi
Fuel Pressure	
Minimum	0.5 psi
Maximum	6.0 psi
Mixture - Set per leaning instructions on performance charts.	

FUEL GRADES

Aviation Gasoline 91/96 (blue) minimum grade or 100 (green) or 100LL (blue).

FUEL ADDITIVES

Alcor TCP Concentrate, mixed according to the instructions provided by Alcor, Inc.

OIL SPECIFICATIONS

Avco Lycoming Specification Number 301E approves for use lubricating oils which conform to both MIL-L-6082B straight mineral type and MIL-L-22851 ashless dispersant lubricants for airplane engines. Refer to the Approved Engine Oils table in the HANDLING, SERVICING AND MAINTENANCE section for a list of approved products.

PROPELLER SPECIFICATIONS

Sensenich M76EMMS-0-60 or 76EM8S5-0-60 fixed

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pitch, two blade propeller. Static rpm at maximum permissible throttle settings: Not over 2350 rpm and not under 2250 rpm. No additional tolerance permitted.

POWER PLANT INSTRUMENT MARKINGS

OIL TEMPERATURE

Caution (Yellow Arc) 60° to 120°F
Operating Range
(Green Arc) 120° to 245°F
Maximum (Red Line) 245°F

OIL PRESSURE

Minimum Pressure (Red Line) 25 psi
Minimum Pressure (Yellow Arc) 25 to 60 psi
Operating Range (Green Arc) 60 to 90 psi
Maximum Pressure (Red Line) 100 psi

FUEL PRESSURE

Operating Range (Green Arc) 0.5 to 6.0 psi

TACHOMETER

Engine Warm-up 1000 to 1200 rpm
Restricted Operation for O-360-A2G
engine only (Red Arc) 2150 to 2350 rpm
Normal Operating Range
all engines (Green Arc) 1800 to 2700 rpm
Maximum RPM (Red Radial) 2700 rpm

MISCELLANEOUS INSTRUMENT MARKINGS

INSTRUMENT AIR

Operating Range (Green Arc) 4.3 to 5.9 in. Hg

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**Section II
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FUEL QUANTITY

On M-1517 thru M-1879 except M-1875, or prior airplanes after compliance with S.I. No. 0624-281

Yellow Band E to 3/8 full

On M-1875, M-1880 and after

Yellow Band E to 1/3 full

WEIGHT LIMITS

NORMAL CATEGORY

Maximum Ramp Weight 2455 lbs

Maximum Take-off

and Landing Weight 2450 lbs

Zero Fuel Weight No Structural Limitation

Maximum Baggage Compartment

Load 270 lbs

UTILITY/ACROBATIC CATEGORY

Maximum Ramp Weight 2035 lbs

Maximum Take-off

and Landing Weight 2030 lbs

Zero Fuel Weight. No Structural Limitation

Maximum Baggage Compartment

Load (Utility Category Only). 270 lbs

CENTER OF GRAVITY LIMITS

NORMAL CATEGORY

Forward: 107.8 inches aft of datum to 1800 lbs with
straight line variation to 114.5 inches at 2450
lbs.

Aft: 118.3 inches aft of datum at all weights.

Section II
Limitations

BEECHCRAFT Sundowner 180
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UTILITY/ACROBATIC CATEGORY

Forward: 107.8 inches aft of datum to 1800 lbs with
straight line variation to 110.2 inches aft of
datum at 2030 lbs.

Aft: 114.0 inches aft of datum at all weights.

REFERENCE DATUM

Datum is 103 inches forward of wing leading edge.
MAC length is 52.7 inches.

MANEUVER LIMITS

This airplane is approved for 4 place in the Normal
Category and for 2 place in the Utility and Acrobatic
Category. Maximum slip duration is 30 seconds.

NORMAL CATEGORY (2450 POUNDS)

No acrobatic maneuvers approved.

UTILITY CATEGORY (2030 POUNDS)

No acrobatic maneuvers are approved except those listed
below.

<i>MANEUVER</i>	<i>ENTRY SPEED (CAS)</i>
Chandelle	116 kts/133 mph
Steep Turn	116 kts/133 mph
Lazy Eight	116 kts/133 mph
Stall (Except Whip)	Use slow deceleration

Intentional Spins M-1494 and after (only if certificated as
Acrobatic) or prior airplanes modified by

Kit No. 23-4007-1S per

S.I. No. 0619-090 Use slow deceleration

ACROBATIC CATEGORY (2030 POUNDS)

For additional approved acrobatic maneuvers, see FAA
Approved Airplane Flight Manual Supplement.

FLIGHT LOAD FACTORS

NORMAL CATEGORY (2450 POUNDS)

Flight maneuvering load factor

Flaps Up +3.8, -1.9

Flaps Down +1.9

UTILITY CATEGORY (2030 POUNDS)

Flight maneuvering load factor

Flaps Up +4.4, -2.2

Flaps Down +2.2

ACROBATIC CATEGORY (2030 POUNDS)

Flight maneuvering load factor

Flaps Up +6.0, -3.0

Flaps Down +2.0

MINIMUM FLIGHT CREW

One (1) Pilot

KINDS OF OPERATION LIMITS

1. VFR day and night
2. IFR day and night

REQUIRED EQUIPMENT FOR VARIOUS CONDITIONS OF FLIGHT

Federal Aviation Regulations (91.3(a), 91.24, 91.25, 91.32, 91.33, 91.52, 91.90, 91.97, 91.170) specify the minimum numbers and types of airplane instruments and equipment which must be installed and operable for various kinds of flight conditions. This includes VFR day, VFR night, IFR day, and IFR night.

Section II Limitations

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Regulations also require that all airplanes be certificated by the manufacturer for operations under various flight conditions. At certification, all required equipment must be in operating condition and should be maintained to assure continued airworthiness. If deviations from the installed equipment were not permitted, or if the operating rules did not provide for various flight conditions, the airplane could not be flown unless all equipment was operable. With appropriate limitations, the operation of every system or component installed in the airplane is not necessary, when the remaining operative instruments and equipment provide for continued safe operation. Operation in accordance with limitations established to maintain airworthiness, can permit continued or uninterrupted operation of the airplane temporarily.

For the sake of brevity, the Required Equipment Listing does not include obviously required items such as wings, rudders, flaps, engine, landing gear, etc. Also the list does not include items which do not affect the airworthiness of the airplane such as entertainment systems, passenger convenience items, etc. However, it is important to note that ALL ITEMS WHICH ARE RELATED TO THE AIRWORTHINESS OF THE AIRPLANE AND NOT INCLUDED ON THE LIST ARE AUTOMATICALLY REQUIRED TO BE OPERATIVE.

To enable the pilot to rapidly determine the FAA equipment requirements necessary for a flight into specific conditions, the following equipment requirements and exceptions are presented. It is the final responsibility of the pilot to determine whether the lack of, or inoperative status of a piece of equipment on his airplane, will limit the conditions under which he may operate the airplane.

WARNING

FLIGHT IN ICING CONDITIONS PROHIBITED.

LEGEND

Numbers refer to quantities required to be operative for a specified condition.

- (-) Indicates that the item may be inoperative for the specified condition.
- (*) Refer to the REMARKS AND/OR EXCEPTIONS column for explicit information or reference.

Section II
Limitations

BEECHCRAFT Sundowner 180
C23 (M-1285 and After)

SYSTEM and/or COMPONENT	VFR Day				Remarks and/or Exceptions
	VFR Night				
	IFR Day				
	IFR Night				
GENERAL					
Overwater flight	*	*	*	*	- *Per FAR 91.33
COMMUNICATIONS					
VHF communications system	*	*	*	*	- *Per FAR 91.33
ELECTRICAL POWER					
Battery	1	1	1	1	
DC alternator	1	1	1	1	
Starter Engaged Warning Light (M-2278 and after)	1	1	1	1	- May be inoperative provided ammeter is operative and monitored

EQUIPMENT AND FURNISHING	1	1	1	- Per Person or Per FAR 91.33
	1	1	1	- Per FAR 91.52
FIRE PROTECTION				
Portable fire extinguisher	*	*	*	-*Optional

Section II
Limitations

BEECHCRAFT Sundowner 180
C23 (M-1285 and After)

SYSTEM and/or COMPONENT	VFR Day				Remarks and/or Exceptions
	VFR Night		IFR Day		
			IFR Night		
FLIGHT CONTROLS					
	Stabilator trim tab indicator	1	1	1	- May be inoperative for ferry flight provided tabs are visually checked in the neutral position prior to take-off and checked for full range of operation.
	Flap position indicator (On electric flap system)	1	1	1	- May be inoperative provided flap travel is visually inspected prior to take-off.
Stall warning	1	1	1	1	

FUEL EQUIPMENT	1	1	1	1	1
Fuel boost pump	1	1	1	1	1
Engine driven fuel pump	1	1	1	1	1
Fuel quantity indicator	2	2	2	2	2
Fuel pressure indicator	1	1	1	1	1
ICE AND RAIN PROTECTION					
Emergency static air source	*	*	*	*	*
Pitot heater	*	*	*	*	*

Section II
Limitations

BEECHCRAFT Sundowner 180
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SYSTEM and/or COMPONENT	VFR Day					Remarks and/ or Exceptions
	VFR Night		IFR Day			
			IFR Night			
LIGHTS Cockpit and instrument lights Taxi light Landing light Rotating beacon Position light	-	*	-	*	-	-*Lights must be operative.
	-	-	-	-	-	-*Per FAR 91.33
	-	*	-	*	1	-*Optional
	*	1	*	1	3	
	-	3	-	3	-	

Section II Limitations

-*Per FAR 91.24, 91.90, 91.97
-*Per FAR 91.33

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Limitations

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SYSTEM and/or COMPONENT	VFR Day				Remarks and/ or Exceptions
	VFR Night		IFR Day		
	IFR Night		IFR Day		
	IFR Night		IFR Day		
ENGINE INDICATING INSTRUMENTS	1	1	1	1	- *Optional
	*	*	*	*	
Engine tachometer indicator					
Exhaust gas temperature indicator					
ENGINE OIL INSTRUMENTS	1	1	1	1	
	1	1	1	1	
Oil pressure indicator					
Oil temperature indicator					

FUEL

TOTAL FUEL with left and right wing fuel systems full:

M-1285 thru M-1516:

Two *29.9-gallon tanks in wings with a total of *58 gallons usable.

M-1517 thru M-1879 except M-1875 and prior airplanes after compliance with Service Instructions No. 0624-281:

Two *29.9-gallon tanks in wings with a total of *52 gallons usable.

M-1875, M-1880 and after:

Two *29.9-gallon tanks in wings with a total of *57.2 gallons usable.

*Value given is nominal. Tank capacity will vary with temperature and manufacturing tolerances.

FUEL MANAGEMENT

On M-1517 thru M-1879 except M-1875, and prior airplanes if service Instruction No. 0624-281 is accomplished:

Do not take off when the Fuel Quantity Gages indicate in the Yellow Band or with less than 11 gallons in each main tank.

Maximum slip duration: 30 seconds

On M-1875, M-1880 and after:

Do not take off when Fuel Quantity Gages indicate in Yellow Band on either gage.

Maximum slip duration: 30 seconds

PLACARDS

*On Left Cabin Door or Left Side Panel:
(M-1285 thru M-1979 except M-1971) (CAS)*

THIS AIRPLANE MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND MANUALS.	
NORMAL CATEGORY	
MAXIMUM DESIGN WEIGHT	2450 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +3.8 -1.9 DOWN +1.9
MAXIMUM MANEUVERING SPEED	136 MPH
NO ACROBATIC MANEUVERS INCLUDING SPINS APPROVED	
UTILITY CATEGORY	
MAXIMUM DESIGN WEIGHT	2030 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +4.4 -2.2 DOWN +2.2
NO ACROBATIC MANEUVERS APPROVED EXCEPT THOSE LISTED BELOW:	
MANEUVER	MAXIMUM ENTRY SPEED
CHANDELLES	133 MPH
LAZY EIGHTS	133 MPH
STEEP TURNS	133 MPH
STALLS (EXCEPT WHIP STALLS)	SLOW DECELERATION
NOTE: MAXIMUM ALTITUDE LOSS DURING STALL	300 FT

**BEECHCRAFT Sundowner 180
C23 (M-1285 and After)**

**Section II
Limitations**

On Instrument Panel in Full View of Pilot (M-1285 through M-1493, unless modified by Kit No. 23-4007-1S and Service Instructions No. 0619-090):

**"THIS AIRPLANE MUST BE OPERATED AS A
NORMAL OR UTILITY CATEGORY AIRPLANE.
INTENTIONAL SPINS ARE PROHIBITED. NO
ACROBATIC MANEUVERS APPROVED EXCEPT:
CHANDELLES, LAZY EIGHTS, STEEP TURNS,
AND STALLS (EXCEPT WHIP STALLS)."**

*On Left Cabin Door or Left Side Panel
(M-1971, M-1980 and after) (CAS)*

**THIS AIRPLANE MUST BE OPERATED IN COMPLIANCE
WITH THE OPERATING LIMITATIONS STATED IN THE
FORM OF PLACARDS, MARKINGS AND MANUALS.**

NORMAL CATEGORY

MAXIMUM DESIGN WEIGHT	2450 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +3.8 -1.9 DOWN +1.9
MAXIMUM MANEUVERING SPEED	118 KTS/136 MPH

**NO ACROBATIC MANEUVERS
INCLUDING SPINS APPROVED**

UTILITY CATEGORY

MAXIMUM DESIGN WEIGHT	2030 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +4.4 -2.2 DOWN +2.2

**NO ACROBATIC MANEUVERS APPROVED
EXCEPT THOSE LISTED BELOW:**

MANEUVER	MAXIMUM ENTRY SPEED
CHANDELLES	116 KTS/133 MPH
LAZY EIGHTS	116 KTS/133 MPH
STEEP TURNS	116 KTS/133 MPH
STALLS (EXCEPT WHIP STALLS)	SLOW DECELERATION
NOTE: MAXIMUM ALTITUDE LOSS DURING STALL	300 FT

**Section II
Limitations**

**BEECHCRAFT Sundowner 180
C23 (M-1285 and After)**

PLACARDS

*On Left Cabin Door or Left Side Panel (Acrobatic):
(M-1285 thru M-1979 except M-1971) (CAS)*

THIS AIRPLANE MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND MANUALS.	
NORMAL CATEGORY	
MAXIMUM DESIGN WEIGHT	2450 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +3.8 -1.9 DOWN +1.9
MAXIMUM MANEUVERING SPEED	136 MPH
NO ACROBATIC MANEUVERS INCLUDING SPINS APPROVED	
UTILITY & ACROBATIC CATEGORY	
MAXIMUM DESIGN WEIGHT	2030 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +6.0 -3.0 DOWN +2.0
NO ACROBATIC MANEUVERS APPROVED EXCEPT THOSE LISTED BELOW:	
MANEUVER	MAXIMUM ENTRY SPEED
CHANDELLES	133 MPH
LAZY EIGHTS	133 MPH
STEEP TURNS	133 MPH
STALLS (EXCEPT WHIP STALLS)	SLOW DECELERATION
NOTE: MAXIMUM ALTITUDE LOSS DURING STALL	300 FT
SPINS (FOR OPERATIONAL LIMITATIONS SEE PLACARD ON SUN VISOR)	
	RECOMMENDED ENTRY SPEED
BARREL ROLL	130 MPH
AILERON ROLL	130 MPH
SNAP ROLL	100 MPH
SPLIT S	90 MPH
IMMELMANN LOOP	150 MPH 140 MPH

On Right and Left Cabin Doors (Acrobatic):

REMOVE DOOR HOLD - OPEN ROD PRIOR TO OPERATION IN ACROBATIC CATEGORY

**BEECHCRAFT Sundowner 180
C23 (M-1285 and After)**

**Section II
Limitations**

On Left Door or Left Side Panel (Acrobatic): (M-1971, M-1980 and after) (CAS)

THIS AIRPLANE MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND MANUALS.	
NORMAL CATEGORY	
MAXIMUM DESIGN WEIGHT	2450 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +3.8 -1.9 DOWN +1.9
MAXIMUM MANEUVERING SPEED	118 KTS/136 MPH
NO ACROBATIC MANEUVERS INCLUDING SPINS APPROVED	
UTILITY & ACROBATIC CATEGORY	
MAXIMUM DESIGN WEIGHT	2030 LBS
REFER TO WEIGHT AND BALANCE DATA FOR LOADING INSTRUCTIONS	
FLIGHT MANEUVERING LOAD FACTOR	FLAPS UP +6.0 -3.0 DOWN +2.0
NO ACROBATIC MANEUVERS APPROVED EXCEPT THOSE LISTED BELOW:	
MANEUVER	MAXIMUM ENTRY SPEED
CHANDELLES	116 KTS/133 MPH
LAZY EIGHTS	116 KTS/133 MPH
STEEP TURNS	116 KTS/133 MPH
STALLS (EXCEPT WHIP STALLS)	SLOW DECELERATION
NOTE: MAXIMUM ALTITUDE LOSS DURING STALL 300 FT	
SPINS (FOR OPERATIONAL LIMITATIONS SEE PLACARD ON SUN VISOR)	
RECOMMENDED ENTRY SPEED	
BARREL ROLL	113 KTS/130 MPH
AILERON ROLL	113 KTS/130 MPH
SNAP ROLL	87 KTS/100 MPH
SPLIT S	79 KTS/90 MPH
IMMELMANN	130 KTS/150 MPH
LOOP	122 KTS/140 MPH

On Right Side of Instrument Panel (Acrobatic):

CAUTION
CONTINUOUS INVERTED FLIGHT WILL CAUSE LOSS OF OIL AND OIL PRESSURE. REAR CG LIMITED AND CARRYING OF BAGGAGE OR REAR SEAT PASSENGERS AND USE OF FLAPS PROHIBITED DURING ACROBATIC MANEUVERS.

PLACARDS

On Upper Right Instrument Panel:

RAISE FLAPS
TO INCREASE
BRAKE
EFFECTIVENESS

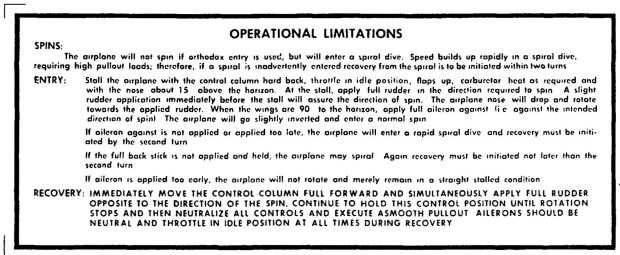
On Flap Extension Handle: (M-1285 thru M-1979 except M-1971) (CAS)

FLAPS PULL TO EXTEND, MAX SPEED 110 MPH
RETRACTED 0°
FIRST NOTCH 15°
SECOND NOTCH 25°
THIRD NOTCH 35°

On Flap Extension Handle: (M-1971, M-1980 and after) (CAS)

FLAPS PULL TO EXTEND, MAX SPEED 96 KTS/110 MPH
RETRACTED 0°
FIRST NOTCH 15°
SECOND NOTCH 25°
THIRD NOTCH 35°

On Survivor Above Pilot's Seat (Acrobatic):



The above placard reads as follows:

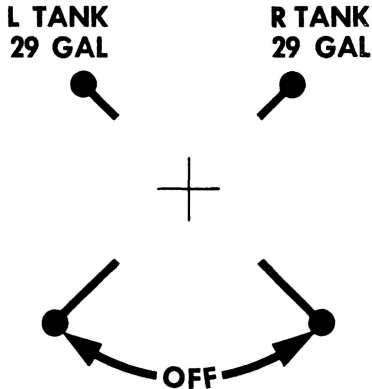
"OPERATIONAL LIMITATIONS SPINS: The airplane will not spin if orthodox entry is used, but will enter a spiral dive. Speed builds up rapidly in a spiral dive, requiring high pullout loads; therefore, if a spiral is inadvertently entered recovery from the spiral is to be initiated within two turns. ENTRY: Stall the airplane with the control column hard back, throttle in idle position, flaps up, carburetor heat as required and with the nose about 15° above the horizon. At the stall, apply full rudder in the direction required to spin. A slight rudder application immediately before the stall will assure the direction of spin. The airplane nose will drop and rotate towards applied rudder. When the wings are 90° to the horizon, apply full aileron against (i.e. against the intended direction of spin). The airplane will go slightly inverted and enter a normal spin. If aileron against is not applied or applied too late, the airplane will enter a spiral dive, and recovery must be initiated by the second turn. If the full back stick is not applied and held, the airplane may spiral. Again recovery must be initiated not later than the second turn. If the aileron is applied too early, the airplane will not rotate and merely remain in a straight stalled condition. RECOVERY: Immediately move the control column full forward and simultaneously apply full rudder opposite to the direction of the spin; continue to hold this control position until rotation stops and then neutralize all controls and execute a smooth pullout. Ailerons should be neutral and throttle in idle position at all times during recovery."

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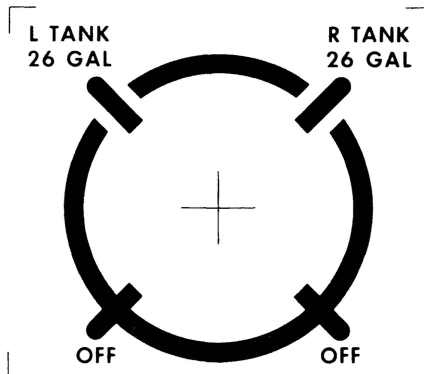
BEECHCRAFT Sundowner 180
C23 (M-1285 and After)

PLACARDS

On Fuel Selector Panel (M-1285 through M-1516):



On Fuel Selector Panel (M-1517 through M-1879 except M-1875 or prior airplanes after compliance with Service Instructions No. 0624-281):



**Temporary Change
to the
Pilot's Operating Handbook
and
FAA Approved Airplane Flight Manual
P/N 169-590008-23TC1**

Publication Affected	C23 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual (P/N 169-590008-23, Issued February, 1979 or Subsequent)
Airplane Serial Numbers Affected	M-1285 and After
Description of Change	The addition of a placard to the fuel selector to warn of the no-flow condition that exists between the fuel selector detents.
Filing Instructions	Insert this temporary change into the C23 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual immediately following page 2-26 (Sec- tion II, LIMITATIONS) and retain until rescinded or replaced.

LIMITATIONS

PLACARDS

*Located On The Face Of The Fuel Selector Valve, For Those
Airplanes In Compliance With S.B. 2670:*

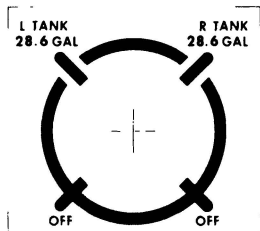
**WARNING - POSITION SELECTOR IN DETENTS ONLY - NO
FUEL FLOW TO ENGINE BETWEEN DETENTS**

Approved:



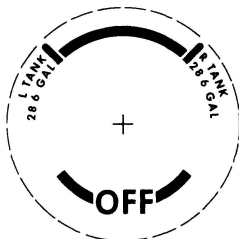
A.C. Jackson
Raytheon Aircraft Company
DOA CE-2

On Fuel Selector Panel (M-1875, M-1880 thru M-2224): ■



OR

On Fuel Selector Panel (Serials M-2225 and after, or earlier airplane serials which have complied with BEECHCRAFT Service Instructions No. 1095):



Adjacent to Engine Instrument Cluster (M-1517 through M-1879 except M-1875 or prior airplanes after compliance with Service Instructions No. 0624-281):

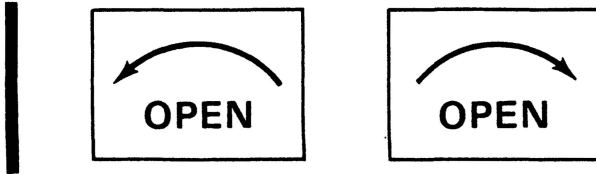
DO NOT TAKE OFF WHEN FUEL QUANTITY GAUGE INDICATES IN YELLOW OR WITH LESS THAN 11 GALLONS IN EACH MAIN TANK. MAXIMUM SLIP DURATION IS 30 SECONDS

Adjacent to Engine Instrument Cluster (M-1875, M-1880 and after):

DO NOT TAKE OFF WHEN FUEL QUANTITY GAUGE INDICATES IN YELLOW ON EITHER GAUGE. MAXIMUM SLIP DURATION 30 SEC

PLACARDS

Above Right and Left Cabin Doors (M-1285 thru M-1412 and M-1415, M-1419, M-1423, M-1439 and M-1447):



On Left Cabin Door (Acrobatic):



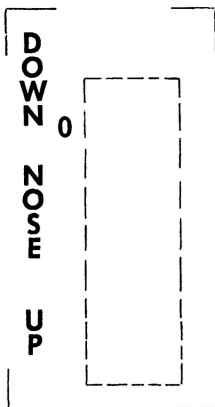
On Right Cabin Door (Acrobatic):



On Baggage Compartment Door:

**TO LEVEL AIRCRAFT — LEVEL
BAGGAGE COMPARTMENT FLOOR**

On Pedestal Between Front Seats:



*On Second Window Frame Right Side (M-1658 and after as
required by weight and balance data):*

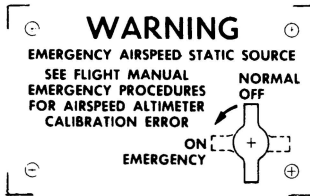
**BAGGAGE, CARGO OR FAMILY SEATS
LOAD IN ACCORDANCE
WITH WEIGHT & BALANCE DATA**
MAXIMUM SEAT CAPACITY _____ POUNDS

**Section II
Limitations**

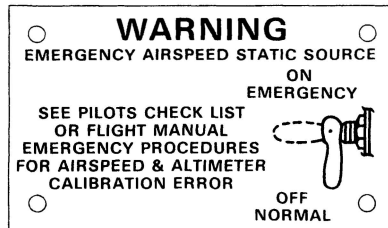
**BEECHCRAFT Sundowner 180
C23 (M-1285 and After)**

PLACARDS

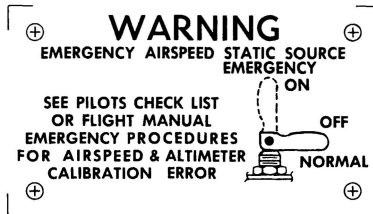
On Lower Sidewall Adjacent to Pilot (when installed):



or;



or;



On Aft Cabin Bulkhead:



On Baggage Compartment Door:

BAGGAGE COMPARTMENT

270 POUNDS

MAXIMUM CAPACITY

On Upper Aft Corner of Each Cabin Door (when installed):

INSTRUCTIONS — SHOULDER STRAP

- 1. OCCUPANT SHORTER THAN
4FT 7IN DO NOT USE
SHOULDER STRAP**
- 2. NEVER USE SHOULDER STRAP
WITH OUT LAP BELTS**

or;

INSTRUCTION-SHOULDER STRAP

- 1. OCCUPANTS SHORTER THAN
4 FT. 7 IN. DO NOT USE
SHOULDER STRAP.**
- 2. PLACE SEAT BACK IN THE
UPRIGHT POSITION DURING
TAKEOFF AND LANDING.**

INTENTIONALLY LEFT BLANK