

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A00006SE
Revision 8
(August 13, 2015)
TOPCUB
AIRCRAFT, INC.
CC18-180
CC18-180A
Original Issue Date:
December 16, 2004

TYPE CERTIFICATE DATA SHEET A00006SE

This data sheet, which is part of Type Certificate No. A00006SE, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Topcub Aircraft, Inc.
 1300 SW Fifth Ave
 Suite 2400
 Portland, OR 97201

Type Certificate transferred to Topcub Aircraft, Inc. on August 13, 2015

I - Model CC18-180 (Normal Category), Approved December 16, 2004

Engine: 1 Lycoming Engine Model O-360-C4P or 1 Lycoming Engine Model O-360-C1G, Engine Type Certificate E-286, or 1 Superior Air Parts Engine Model O-360-A3A2 Type Certificate E00001SC.

Fuel: 100 (green) or 100LL (blue) grade aviation fuel.

Engine Limits: Maximum takeoff power and maximum continuous power = 180 horsepower at 2700 rpm.
See Engine Type Certificate Data Sheet E-286 for additional limitations for Lycoming engines and Type Certificate Data Sheet E00001SC for Superior Engine.

Propeller: With Lycoming Engine Models O-360-C4P or O-360-C1G:
1 Sensenich Propeller Manufacturing Company Model 76EM8, Propeller Type Certificate P4EA.
Operation between 2150 and 2350 RPM restricted to transient operation only with O-360-C1G.
 Or
1 Sensenich Wood Propeller Company Model W80CM8, Propeller Type Certificate P27NE.
 Or
1 McCauley Propeller Systems Model 1A200/FA, Propeller Type Certificate P-874.

With Superior Air Parts Engine Model O-360-A3A2:
1 Sensenich Propeller Manufacturing Company Model 76EM8, Propeller Type Certificate P4EA.
Operation between 2150 and 2350 RPM restricted to transient operation only.

Propeller Limits: Sensenich Propeller Manufacturing Company Model 76EM8
Minimum diameter = 76 inches
Maximum diameter = 76 inches
Pitch = 52 to 56 inches

Sensenich Wood Propeller Company Model W80CM8
Minimum diameter = 80 inches
Maximum diameter = 80 inches
Pitch = 45 to 47 inches

McCauley Propeller Systems Model 1A200/FA
Minimum diameter = 78.8 inches
Maximum diameter = 82 inches
Pitch = 40 to 44 inches

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Airspeed Limits:	V _o (2300 lbs)	102 mph IAS
	V _o (1300 lbs)	76 mph IAS
	V _{FE} (Fully extended)	89 mph IAS
	V _{FE} (22° at first notch)	98 mph IAS
	V _{NO}	133 mph IAS
	V _{NE}	152 mph IAS
	Maximum speed for landing gear operation or extended when equipped with Wipaire 2100A amphibious floats, V _{LO} = 133 mph IAS.	
C.G. Range:	Straight line variation between points.	
	Aft Limits	81 inches aft of datum from 1300 lbs to 2300 lbs.
	Forward Limits	70.5 inches aft of datum from 1300 lbs to 1600 lbs then to 79.1 inches aft of datum at 2300 lbs.
<u>When equipped with Wipaire 2100A amphibious and 2100S seaplane floats:</u>		
	Straight line variation between points.	
	Aft Limits	79 inches aft of datum from 1300 to 2300 lbs.
	Forward Limits	70.5 inches aft of datum from 1300 lbs to 1600 lbs then to 75 inches aft of datum at 2300 lbs.
Datum:	60 inches forward of wing leading edge.	
Leveling Means:	Refer to latest FAA approved revision of the Maintenance Manual, Document TC10000AMM.	
Weight limits:	Maximum ramp and takeoff = 2300 lbs.	
	Maximum landing weight = 2300 lbs.	
	Minimum operating weight = 1300 lbs.	
Minimum Crew:	1 Pilot.	
No. of Seats:	2 seats total:	1 located at 71 inches aft of datum. 1 located at 97 inches aft of datum.
Maximum Baggage:	Under passenger seat storage 5 lbs.	
	Forward cargo compartment (behind passenger) 180 lbs.	
	Extended cargo compartment 20 lbs.	
	Storage/accessory compartment 5 lbs.	
Fuel Capacity:	50 gallons total; 44 gallons useable.	
	(Two 25 gallon tanks in wings at 84 inches aft of datum).	
Oil Type and Capacity:	8 qts. See Engine Type Certificate Data Sheet E-286 for Lycoming Engine Models O-360-C4P and O-360-C1G, and Engine Type Certificate Data Sheet E00001SC for Superior Air Parts Engine O-360-A3A2.	
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed.	
	14,600 feet with FAA approved oxygen system installed.	
Control Surface Movements:	Wing flaps:	0° ±2° Take off 22° ±2° Landing 50° ±2°
	Ailerons:	Up 18° ±2° Down 18° ±2°
	Elevator:	Up 25° ±2° Down 15° ±2°
	Stabilizer:	Up 2.5° ±0.5° Down 4° ±0.5°
	Rudder:	Right 25° ±2°
		Left 25° ±2°
Additional Limitations:	Airframe life limits:	Refer to latest FAA approved revision of the Maintenance Manual, Document TC10000AMM.

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- Kinds of operations: Day, Night, Visual Flight Rules (VFR). (see Note 4 for night operations eligibility)
- Required Maintenance: The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the latest FAA approved revision of the Maintenance Manual, Document TC10000AMM.
- Required Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification.
- In addition to the above required equipment, the following equipment is also required:
The latest FAA Approved/Accepted Revision of “*CC18-180 Pilots Operating Handbook and FAA Approved Airplane Flight Manual*,” Document No. TC10000AFM.
- Design Data: The airplane shall be manufactured in accordance with the latest FAA approved revision of “*Master Document List*”, Document No. TC10000MDL, or other FAA approved data.
- Serial Numbers Eligible: CC18-0002 and on
- Certification Basis: Part 23 of the Federal Aviation Regulations (FAR) effective December 18, 1964, as amended by 23-1 through 23-55. FAR 36 as amended on the date of certification. Application for type certificate, dated August 28, 2002.
- Equivalent Level of Safety (ELOS) Findings: Emergency exit requirements of FAR 23.807 in accordance with ELOS No. ACE-02-11 as detailed in FAA memo dated October 17, 2002 (FAA memo reference no. 190S-02-625).
- Production Basis: Production Certificate 722NM.
- NOTE 1: A current weight and balance report with a list of equipment included in the certificated empty weight must be provided for each aircraft at the time of original airworthiness certification.
- NOTE 2: The placards specified in the latest FAA Approved/Accepted Revision of “*CC18-180 Pilots Operating Handbook and FAA Approved Airplane Flight Manual*,” Document No. TC10000AFM, must be displayed.
- NOTE 3: Airplanes are eligible for installation of Wipaire 2100A amphibious and 2100S straight floats when structural modifications and installation are accomplished in accordance with the latest FAA approved revision of Drawing No. TC10000. Installation requires approved flight manual supplement pages.
- NOTE 4: Airplanes serial number 0056 and on are eligible for Day, Night, Visual Flight Rules (VFR).
Airplanes serial numbers 0002 to 0055 are eligible for Day, Night, Visual Flight Rules (VFR) when modified with latest FAA approved revision of Cub Crafters Service Letter SL0002.

II - Model CC18-180A (Normal Category), Approved July 1, 2005

- Engine: 1 Lycoming Engine Model O-360-C4P or O-360-C1G, Engine Type Certificate E-286.
- Fuel: 100 (green) or 100LL (blue) grade aviation fuel.
- Engine Limits: Maximum takeoff power and maximum continuous power = 180 horsepower at 2700 rpm.
See Engine Type Certificate Data Sheet E-286 for additional limitations.
- Propeller: 1 Sensenich Propeller Manufacturing Company Model 76EM8, Propeller Type Certificate P4EA.
Operation between 2150 and 2350 RPM restricted to transient operation only with O-360-C1G.
Or
1 Sensenich Wood Propeller Company Model W80CM8, Propeller Type Certificate P27NE
Or
1 McCauley Propeller Systems Model 1A200/FA, Propeller Type Certificate P-874
- Propeller Limits: Sensenich Propeller Manufacturing Company Model 76EM8
Minimum diameter = 76 inches
Maximum diameter = 76 inches
Pitch = 52 to 56 inches

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Sensenich Wood Propeller Company Model W80CM8

Minimum diameter = 80 inches

Maximum diameter = 80 inches

Pitch = 45 to 47 inches

McCauley Propeller Systems Model 1A200/FA

Minimum diameter = 78.8 inches

Maximum diameter = 82 inches

Pitch = 40 to 44 inches

Airspeed Limits:	V _o (2300 lbs)	102 mph IAS
	V _o (1300 lbs)	76 mph IAS
	V _{FE} (Fully extended)	89 mph IAS
	V _{FE} (22° at first notch)	98 mph IAS
	V _{NO}	133 mph IAS
	V _{NE}	152 mph IAS
C.G. Range:	Straight line variation between points.	
	Aft Limits	81 inches aft of datum from 1300 lbs to 2300 lbs.
	Forward Limits	70.5 inches aft of datum from 1300 lbs to 1600 lbs then to 79.1 inches aft of datum at 2300 lbs.
Datum:	60 inches forward of wing leading edge.	
Leveling Means:	Refer to latest FAA approved revision of the Maintenance Manual, Document TC10000AMM.	
Weight limits:	Maximum ramp and takeoff = 2300 lbs. Maximum landing weight = 2300 lbs. Minimum operating weight = 1300 lbs.	
Minimum Crew:	1 Pilot.	
No. of Seats:	2 seats total:	1 located at 71 inches aft of datum. 1 located at 97 inches aft of datum.
Maximum Baggage:	Under passenger seat storage 5 lbs. Forward cargo compartment (behind passenger) 180 lbs. Extended cargo compartment 20 lbs.	
Fuel Capacity:	46 gallons total; 40 gallons useable. (Two 23 gallon tanks in wings at 84 inches aft of datum).	
Oil Type and Capacity:	8 qts. See Engine Type Certificate Data Sheet E-286.	
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed. 14,600 feet with FAA approved oxygen system installed.	
Control Surface Movements:	Wing flaps:	0° ±2° Take off 22° ±2° Landing 50° ±2°
	Ailerons:	Up 18° ±2° Down 18° ±2°
	Elevator:	Up 25° ±2° Down 15° ±2°
	Stabilizer:	Up 2.5° ±0.5° Down 4° ±0.5°
	Rudder:	Right 25° ±2° Left 25° ±2°
Additional Limitations:	Airframe life limits:	Refer to latest FAA approved revision of the Maintenance Manual, Document TC100000AMM.
	Kinds of operations:	Day, Visual Flight Rules (VFR).

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- Required Maintenance: The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the latest FAA approved revision of the Maintenance Manual, Document TC10000AMM.
- Required Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification.
- In addition to the above required equipment, the following equipment is also required:
The latest FAA Approved/Accepted Revision of “*CC18-180A Pilots Operating Handbook and FAA Approved Airplane Flight Manual*,” Document No. CC18-180A-AFM.
- Design Data: The airplane shall be manufactured in accordance with the latest FAA approved revision of “*Master Document List*”, Document No. TC10000AMD, or other FAA approved data.
- Serial Numbers Eligible: CC18-0001 only.
- Certification Basis: Part 23 of the Federal Aviation Regulations (FAR) effective December 18, 1964, as amended by 23-1 through 23-55. FAR 36 as amended on the date of certification. Application for type certificate, dated August 28, 2002.
- Equivalent Level of Safety (ELOS) Findings: Emergency exit requirements of FAR 23.807 in accordance with ELOS No. ACE-02-11 as detailed in FAA memo dated October 17, 2002 (FAA memo reference no. 190S-02-625).
- Production Basis: None.
- NOTE 1: A current weight and balance report with a list of equipment included in the certificated empty weight must be provided for each aircraft at the time of original airworthiness certification.
- NOTE 2: The placards specified in the latest FAA Approved/Accepted Revision of “*CC18-180A Pilots Operating Handbook and FAA Approved Airplane Flight Manual*,” Document No. CC18-180A-AFM, must be displayed.

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