

United States Of America  
Department of Transportation - Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SA02354AK

*This Certificate issued to* Tundrahawk Aviation, LLC  
2425 Merrill Field Drive  
Anchorage, AK 99501

*certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 04 of the Civil Air Regulations.*

*Original Product Type Certificate Number :* A-738

*Make :* Consolidated Vultee Aircraft Corp. (Stinson)

*Model :* 10A

*Description of Type Design Change:* Installation of Lycoming O-320 (no suffix) engine and aft fuselage modification in accordance with the Descriptive Data listed in Tundrahawk, LLC, Master Data List, MDL-LF-08001, dated August 27, 2008, or later FAA approved revision.

*Limitations and Conditions :*

1. Compatibility of this design change with previously approved modifications must be determined by the installer.
2. The data supporting this "one-only" STC is inadequate for duplication or installation in other aircraft and it cannot be amended nor is the holder eligible for an FAA production approval. This approval is limited to Stinson 10A, serial number 7856 and shall not be applied to any other serial number airplane.
3. For Instructions for Continued Airworthiness, refer to Tundrahawk Aviation, LLC, Document Number ICA-LF-08001, Rev N/C, dated July 28, 2009, or later FAA approved revision.

(See Continuation of Limitations and Conditions on Page 3 of 4)

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* April 14, 2008

*Date reissued :*

*Date of issuance:* September 11, 2009

*Date amended :*



*By direction of the Administrator*

(Signature)

David D. Swartz  
Acting Manager  
Anchorage Aircraft Certification Office

(Title)

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*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*

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**Supplemental Type Certificate**  
(Continuation Sheet)

*Number* SA02354AK

*Limitations and Conditions* (Continued)

Engine: Lycoming O-320 (no suffix) engine or O-320-A1A (approved alternate).

Fuel: Minimum grade aviation gasoline: 80/87

Engine Limits: For all operations, 2700 max rpm (150 hp)

Airspeed Limits: Level flight or climb 120 mph True Indicated  
Glide or dive 144 mph True Indicated  
Flaps Extended 85 mph True Indicated

Tachometer Limits: Red Line: Rated engine speed  
Yellow Arc: 2500 rpm to 2700 rpm  
Green Arc: 500 rpm to 2500 rpm

Propeller: McCauley 1A170/GM-7646

Propeller Limits: Diameter: Not over 76 inches, not under 70 inches.

C.G. Range: (+14.7) to (+19.0)

Empty Weight C.G. range: (+14.6) to (+15.7) with standard fuel only.  
(+14.6) to (+15.3) when extra fuel tank is installed.  
Ranges are valid for either 1650 or 1680 lbs. maximum weight but not for non-standard arrangements except as noted.  
When empty weight C.G. falls within pertinent range, computation of critical fore and aft C. G. positions is unnecessary.

Maximum weight: 1680 lbs.

No. seats: 3 (two at +16 and one @ +39)

Maximum baggage: 24 lbs. (+39) Baggage may be increased to 194 lbs. when rear passenger is not carried  
15 lbs. (+67) (Aft baggage compartment)  
20 lbs. (+120)(Survival gear compartment). Ballast + survival gear not to exceed 20 lbs.

Oil capacity: 8 qts (-41)

Tires: Minimum tire size: 8.50-6

(See Continuation of Limitations and Conditions on Page 4 of 4)

# Supplemental Type Certificate

(Continuation Sheet)

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*Limitations and Conditions* (Continued)

Placards: The following placards are to be conspicuously posted in the noted locations:

On the inside of the aft baggage compartment door:

15 lbs MAXIMUM CAPACITY

On the outside of the survival gear door:

SURVIVAL GEAR BAG INSIDE MAXIMUM WEIGHT OF  
BALLAST + SURVIVAL GEAR NOT TO EXCEED 20 Lb.

On top surface of wing adjacent to fuel filler cap:

PRESSURIZING FUEL FILLER CAPS MUST BE INSTALLED.  
VENTS TO FACE FORWARD (LEFT -TO-RIGHT)  $\pm 5.0^\circ$ .

----- *EAD* -----