

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A32CE
Revision 1
FAIRCHILD
C-119L

December 15, 1981

TYPE CERTIFICATE DATA SHEET NO. A32CE

This data sheet which is a part of Type Certificate No. A32CE prescribes the 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 William Waara
 2861 14th Avenue
 Columbus, NE 68601

I - Model United States Air Force (Fairchild) C-119L (Restricted Category) Approved May 7, 1981

Engines	2 Wright R-3350-89B/95W
Fuel	100/130 Minimum Grade Aviation Gasoline
Engine limits	2900 r.p.m. (3500 hp), Takeoff, wet, low blower 2900 r.p.m. (2800 hp), Maximum, dry, low blower 2600 r.p.m. (2600 hp) METO, low blower 2600 r.p.m. (1760 hp) 10,000 ft. alt. METO, high blower 2300 r.p.m. (1560 hp) 10,000 ft. alt. Cruise, high blower 2100 r.p.m. (1460 hp) 10,000 ft. Alt., Cruise, high blower
Propeller	Hamilton, Standard 43H60-603 or 605 Hubs with R-A6959B-0 blades. See NOTE 2.
Airspeed limits (IAS)	Vne - Never exceed (217 knots) Vc - Structural Cruising (176 knots) Va - Maneuver (162 knots) Flaps or gear extended (140 knots)
C.G. range	Aft of datum +311.6" to +335.2" at all weights
Datum	Fus. Station 0 (103.8" forward of jig point fitting on front jack pad)
Maximum gross wt.	70,000 lbs.
Maximum landing weight	69,970 lbs.
Maximum zero fuel weight	61,240 lbs. (Outer wing tanks to be full before fuel is added to inner wing tanks)
Leveling means	Eye bolt at ceiling station 310 for plumb bob suspension to cross lined plates under cargo floor between stations 310 and 333.
Number of seats	Limited to the Flight Crew and number of persons essential to perform the intended function of this operation.
Fuel capacity	2624 total - 2 outboard fuel tanks 855 Gal. each (+354.5) - 2 inboard fuel tanks 457 Gal. each (+354.5)

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Oil capacity	109 gal. total - 2 nacelle tanks 54.5 gal. each (+338.4)			
Cargo capacity	See T.O. 1C-119L-1 Section V.			
Control surface movements (See Sec. VIII T.O. 1C-119G-2-1)	Aileron	Up	$24^{\circ} \pm 1^{\circ}$	Down $12^{\circ} \pm 1^{\circ}$
	Flettner Tab	Up	$17^{\circ} + 4^{\circ}, - 2^{\circ}$	Down $30^{\circ} + 6^{\circ}, - 2^{\circ}$
	Trim Tab	Up	$15^{\circ} \pm 1, 1/2^{\circ}$	Down $12^{\circ} \pm 1 1/2^{\circ}$
	Elevator	Up	$24 1/2^{\circ} \pm 1 1/2^{\circ}$	Down $20 1/2^{\circ} \pm 1 1/2^{\circ}$
	Spring Tab	Up	$17^{\circ} + 0^{\circ}, - 5^{\circ}$	Down $24^{\circ} + 2^{\circ}, - 0^{\circ}$
	Trim Tab	Up	$12^{\circ} \pm 2^{\circ}$	Down $22^{\circ} \pm 2^{\circ}$
	Rudder	Right	$25^{\circ} \pm 2^{\circ} - 0^{\circ}$	Left $20^{\circ} + 2^{\circ}, - 0^{\circ}$
	Spring Tab	Right	$5^{\circ} \pm 1^{\circ}$	Left $5^{\circ} \pm 1^{\circ}$
	Trim Tab	Right	$10 1/2^{\circ} \pm 1^{\circ}$	Left $10 1/2^{\circ} \pm 1^{\circ}$
	Wing Flaps	Take-off		Down 15°
		Landing		Down 40°
Serial Numbers eligible (See NOTE 2A)	Air Force Serial Number 53-7884 (Manufacturer's Serial Number 11318)			
Certification basis	<p>FAR 21.25(a)(2) dated January 15, 1981, Amendments 21-1 thru 21-53, Restricted Category Type Certificate issued on May 7, 1981. Date of Application: March 5, 1981.</p> <p>Aircraft has been modified to Waara Drawings Nos. 001, 002, and 003, and descriptive data submitted during type certification for the special purpose of agricultural dry chemical spraying when incidental to the business of the airplane owner which is other than air transport.</p>			
Production basis	None - prior to original certification of each aircraft, an FAA representative must perform an inspection for workmanship, materials, and conformity with the approved technical data.			
Equipment	The basic required equipment as prescribed in the applicable Airworthiness Regulations (See Certification Basis), must be installed in the aircraft for certification. In addition, an FAA Approved Airplane Flight Manual Supplement is required in addition to the operating limitations specified in Sec. V of T.O. 1C-119L-1.			

NOTE 1. Current weight and balance report and loading instructions must agree with Sec. V of T.O. 1C-119L-1. No determination has been made with respect to the proper functioning of the agricultural material dispensing system or with respect to the ability to maintain adequate control of airplane center of gravity movement when agricultural materials are carried in the dispensing tank for that system.

NOTE 2. This approval applies to:

A. Basic United States Air Force C-119G airplanes modified to C-119L in accordance with USAF T.O. 1C-119-688 with no other major modification except dry chemical plumbing installation per Waara Drawings Nos. 001, 002, and 003, and descriptive data submitted during type certification.

B. Airplane certified for special purpose of agricultural dry chemical spraying with the following limitations:

- (1) Aft cargo doors must be on the aircraft.
- (2) Operation over densely populated areas is limited to the requirements of the FAA Approved Airplane Flight Manual Supplement dated May 7, 1981, or later.
- (3) In addition to the operating limitations in this data sheet, area, economic, passenger and other appropriate operating limitations in accordance with FAR 21.25 shall be shown on placards or listing accessible to the pilot.

- (4) The following placard must be displayed in front of and in clear view of the pilot:

"This airplane must be operated as a restricted category airplane in compliance with the operating limitations state in the form of placards, markings, and manuals."

- (5) Red radial line required on airspeed indicator at (217 knots).

NOTE 3. The aircraft must be serviced and maintained in accordance with USAF T.O. 1C-119G-2-1 and Waara continuous maintenance plan per FAR 91.217.

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