

FEDERAL AVIATION ADMINISTRATION

A13SW Revision 1 FAIRCHILD C-123B C-123K April 21, 1982
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TYPE CERTIFICATE DATA SHEET NO. A13SW

This data sheet which is a part of type certificate No. A13SW 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 Mancro Aircraft Company
 13611 Hartside
 Dallas, Texas 75234

I - Model United States Air Force (Fairchild) C-123 B (Restricted Category) Approved October 6, 1981

Engine	2 P & W R-2800-99W
Fuel	115/145 Minimum grade aviation gasoline
Engine limits	2,800 rpm (2,400 hp) (59.5 in. Hg. - Sea Level) Maximum Wet - Low Blower 2,700 rpm (2,050 hp) (55.0 in. Hg. - Sea Level) Maximum Dry - Low Blower 2,600 rpm (1,800 hp) (48.5 in. Hg. - Sea Level) METO, Low Blower 2,600 rpm (1,850 hp) (49.5 in. Hg. - 10,000 ft. Alt.) Maximum Wet - High Blower 2,600 rpm (1,700 hp) (49.0 in. Hg. - 10,000 ft. Alt.) MET, High Blower
Propeller	Hamilton, Standard 43E60-607 Hubs with 6917A-14 blades.
Airspeed limits	Vne - Never Exceed (245 knots) Vc - Structural Cruising (195 knots) Flaps or gear extended (132 knots)
C.G. range	Aft of datum +324.26 to +343.89 at all Wts.
Datum	Fus. Station 0 (120 inches fwd of fwd jack point)
Maximum gross weight	60,000 lbs.
Maximum landing weight	59,000 lbs.
Maximum zero fuel weight	See Figure 5-3, USAF T.O. 1C-123B-1
Leveling means	Plate at Sta. 425.0 inside L.H. door
Number of seats	Limited to the flight crew and number of persons essential to perform the intended function of this operation
Fuel capacity	900 gal. total - 2 external drop fuel tanks 450 gal. each (+338) 1,462 gal total - 2 nacelle fuel tanks 731 gal. each (+388)
Oil capacity	80 gal. total - 2 nacelle tanks 40 gal. each (+288)
Cargo capacity	See USAF T.O. 1C-123B-1, Section V

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I - Model United States Air Force (Fairchild) C-123 B (cont'd)

Control surface movements (See Sec. 2 of USAF T.O. 1C-123B-2-1 page 2-126)	Aileron	Up	$20^{\circ} \pm 1^{\circ}$	Down	$15^{\circ} \pm 1^{\circ}$
	Trim Tab	Up	$10^{\circ} \pm 1^{\circ}$	Down	$10^{\circ} \pm 1^{\circ}$
	Elevator	Up	$25^{\circ} \pm 1^{\circ}$	Down	$16 \frac{3}{4}^{\circ} \pm 1^{\circ}$
	Spring Tab	Up	$13 \frac{1}{2}^{\circ} \pm 1^{\circ}$	Down	$20^{\circ} \pm 1^{\circ}$
	Trim Tab	Up	$20^{\circ} \pm 1^{\circ}$	Down	$25^{\circ} \pm 1^{\circ}$
	Rudder	Left	$20^{\circ} \pm 1^{\circ}$	Right	$20^{\circ} \pm 1^{\circ}$
	Spring Tab	Left	$20^{\circ} \pm 1^{\circ}$	Right	$20^{\circ} \pm 1^{\circ}$
	Trim Tab	Left	$20^{\circ} \pm 1^{\circ}$	Right	$25^{\circ} \pm 1^{\circ}$
	Wing Flaps	Takeoff		Down	$19^{\circ} \pm 2^{\circ}$
		Landing		Down	$45^{\circ} \pm 1^{\circ}$

Serial Numbers eligible
(See Note 1A and 1B)
(See Note 5)

Manufacturers Serial Numbers

For aircraft exported and returned to United States
20001 Through 20304 except 20005, 20006, 20008, 20087, 20165, and
20272 through 20280

II - Model United States Air Force (Fairchild) C-123 K (Restricted Category) Approved April 21 1982

Engine	2 P & W R-2800-99W; 2 GE J85-GE-17
Fuel	115/145 Minimum grade aviation gasoline
Engine limits	P & W R-2800-99W 2,800 rpm (2,400 hp) (59.5 in. Hg. - Sea Level) Maximum Wet - Low Blower 2,700 rpm (2,050 hp) (55.0 in. Hg. - Sea Level) maximum Dry - Low Blower 2,600 rpm (1,800 hp) (48.5 in. Hg. - Sea Level) METO, Low Blower 2,600 rpm (1,850 hp) (49.5 in. Hg. - 10,000 ft. Alt.) Maximum Wet - High Blower 2,600 rpm (1,700 hp) (49.0 in. Hg. - 10,000 ft. Alt.) METO, High Blower GE J85-GE-17: 100% rpm (692°C EGT), 30 minutes maximum 97.9% rpm (676°C EGT) or less, continuous
Propeller	Hamilton Standard 42E60-607 Hubs with 6917A-14 blades.
Airspeed limits	Vne - Never Exceed (245 knots) Vc - Structural Cruising (195 knots) Flaps or gear extended (132 knots)
C.G. range	Aft of datum +324.26 to +343.89 at all Wts.
Datum	Fus. Station 0 (120 inches fwd of fwd jack point)
Maximum gross weight	60,000 lbs.
Maximum landing weight	59,000 lbs.
Maximum zero fuel weight	See Figure 5-4, USAF T.O. 1C-123K-1
Leveling means	Plate at Sta. 425.0 inside L.H. door
Number of seats	Limited to the flight crew and number of persons essential to perform the intended function of this operation
Fuel capacity	900 gal. total - 2 external drop fuel tanks 450 gal. each (+338) 1,462 gal total - 2 nacelle fuel tanks 731 gal. each (+388)
Oil capacity	80 gal. total - 2 nacelle tanks 40 gal. each (+288)

II - Model United States Air Force (Fairchild) C-123 K (Restricted Category) (cont'd)

Cargo capacity	See USAF T.O. 1C-123K-1, Section V					
Control surface movements (See Sec. 2 of USAF T.O. 1C-123B-2-1 page 2-126)	Aileron	Up	$20^{\circ} \pm 1^{\circ}$	Down	$15^{\circ} \pm 1^{\circ}$	
	Trim Tab	Up	$10^{\circ} \pm 1^{\circ}$	Down	$10^{\circ} \pm 1^{\circ}$	
	Elevator	Up	$25^{\circ} \pm 1^{\circ}$	Down	$16 \frac{3}{4}^{\circ} \pm 1^{\circ}$	
	Spring Tab	Up	$13 \frac{1}{2}^{\circ} \pm 1^{\circ}$	Down	$20^{\circ} \pm 1^{\circ}$	
	Trim Tab	Up	$20^{\circ} \pm 1^{\circ}$	Down	$25^{\circ} \pm 1^{\circ}$	
	Rudder	Left	$20^{\circ} \pm 1^{\circ}$	Right	$20^{\circ} \pm 1^{\circ}$	
	Spring Tab	Left	$20^{\circ} \pm 1^{\circ}$	Right	$20^{\circ} \pm 1^{\circ}$	
	Trim Tab	Left	$20^{\circ} \pm 1^{\circ}$	Right	$25^{\circ} \pm 1^{\circ}$	
	Wing Flaps	Takeoff			Down	$19^{\circ} \pm 2^{\circ}$
		Landing			Down	$45^{\circ} \pm 1^{\circ}$
Serial Numbers eligible (See Note 1A and 1B) (See Note 5)	<u>Manufacturers Serial Numbers</u> For aircraft exported and returned to United States 20001 Through 20304 except 20005, 20006, 20008, 20087, 20165, and 20272 through 20280					

Data Pertinent to All Models**Certification basis**

The certification basis is FAR 21.25(a) (2) and (b)(7) dated May 1974, Amendment 21-1 through 21-54. The military production configuration C-123B aircraft entered service with the United States Air Force 309th Troop Carrier Group in July 1955.

The aircraft has been modified to Mancro Drawing MAC 160001, Rev. C, for the special purpose of carrying enclosed/package cargo in areas specified in the FAA approved operations specification where standard aircraft are not reasonably available to carry enclosed/package cargo and when the carriage of such cargo is incidental to the business of the airplane owner, which is other than air transport.

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 and assure that the applicant has conducted a satisfactory flight test. All applicable TCTO's must be accomplished.

Equipment

(See Note 6 and 7)

The basic required equipment as prescribed in the applicable Airworthiness Regulations (See Certification Basis), must be installed in the aircraft for certification.

NOTE 1. This approval applies to:

- A. Basic United States Air Force C-123B and C-123K airplane with no major modifications except as required by Mancro Drawing MAC 160001.
- B. Airplane certified for the special purpose of carrying enclosed/package cargo with the following limitations:
 1. 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 listings accessible to the pilot.
 2. The following placard must be displayed in the C-123B airplane in front of and in clear view of the pilot:

"RESTRICTED CATEGORY"

"This airplane must be operated as a restricted category airplane in compliance with the operating limitations stated in Section V of USAF T.O. 1C-123B-1 and in the form of placards, markings, and manuals. It is certified for the special purpose of carrying enclosed/package cargo in areas specified in the FAA approved operations specification where standard aircraft are not reasonably available to carry enclosed/package cargo and when the carriage of such cargo is incidental to the business of the airplane owner, which is other than air transport. All cargo must be loaded and restrained in accordance with USAF T.O. 1C-123B-5."

3. The following placard must be displayed in the C-123K airplane in front of and in clear view of the pilot:

"RESTRICTED CATEGORY"

"This airplane must be operated as a restricted category airplane in compliance with the operating limitations stated in Section V of USAF T.O. 1C-123K-1 and in the form of placards, markings, and manuals. It is certified for the special purpose of carrying enclosed/packaged cargo in areas specified in the FAA approved operations specification where standard aircraft are not reasonably available to carry enclosed/packaged cargo and when the carriage of such cargo is incidental to the business of the airplane owner, which is other than air transport. All cargo must be loaded and restrained in accordance with USAF T.O. 1C-123B-5."

4. A red radial line is required on the airspeed indicator at 245 knots.
5. Fuselage cargo compartments must be marked by a 1 inch wide white line from floor level to 60 inches above the floor. Compartment markings must include compartment designation, compartment capacity, and the allowable floor loading for the compartment in accordance with USAF T.O. 1C-123B-5, Section III. Compartment markings must be white letters at least 1 inch high and must be stenciled on the left and right inside walls of the fuselage between 30 and 60 inches above the floor.
6. Carriage of hazardous materials is prohibited unless compliance is shown with the applicable regulations in the Code of Federal Regulations 49, Part 175.

NOTE 2. Current weight and balance report and loading instructions must agree with Section II of USAF T.O. 1C-123B-1 for the C-123B and SECTION II of USAF T.O. 1C-123K-1 for the C-123K.

NOTE 3. The aircraft must be serviced and maintained in accordance with USAF T.O. 1C-123B-2-1.

NOTE 4. All cargo must be loaded and restrained in accordance with USAF T.O. 1C-123B-5.

NOTE 5. The following note must be placed under "exceptions" on all Export Certificates of Airworthiness for this aircraft: "This aircraft is type certificated in the restricted category and may not meet the applicable airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation."

NOTE 6. USAF T.O. 1C-123B-1 must be available in the C-123B aircraft for all flight operations.

NOTE 7. USAF T.O. 1C-123K-1 must be available in the C-123K aircraft for all flight operations.

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