DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A8PC
Revision 2
FUJI HEAVY INDUSTRIES
700
710

May 29, 1980

TYPE CERTIFICATE DATA SHEET NO. A8PC

This data sheet which is part of type certificate No. A8PC 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 — Fuji Heavy Industries, Ltd.
2-7, Nishi-Shinjuku 1-chome
Shinjuku-ku, Tokyo, Japan

I - Model 700 (Normal Category), approved September 30, 1977

Engine — Two Lycoming T10-540-R2AD

Fuel — 100/130 minimum grade aviation gasoline

Engine limits — For all operations, 2500 r.p.m. (340 hp.) 44.0 in. Hg MP up to 16,800 ft. altitude in standard atmosphere. Above 16,800 ft., the following maximum MP applies for maximum r.p.m.:

Altitude (ft.)	Max. Allowable MP. (in.Hg)
16,800	44.0
17,000	43.6
18,000	41.8
19,000	40.1
20,000	38.5
21,000	36.9
22,000	35.4
23,000	33.9
24,000	32.6
25,000	31.4

Propeller and propeller limits — Two Hartzell HC-E3YR-2ATF/FC8468-5R 3-blade full feathering
Pitch setting at 30 in. station:
Low 14.8° ± 0.1°
High 84° ± 0.5° (feathered)

Diameter: 81 inches to 79 inches

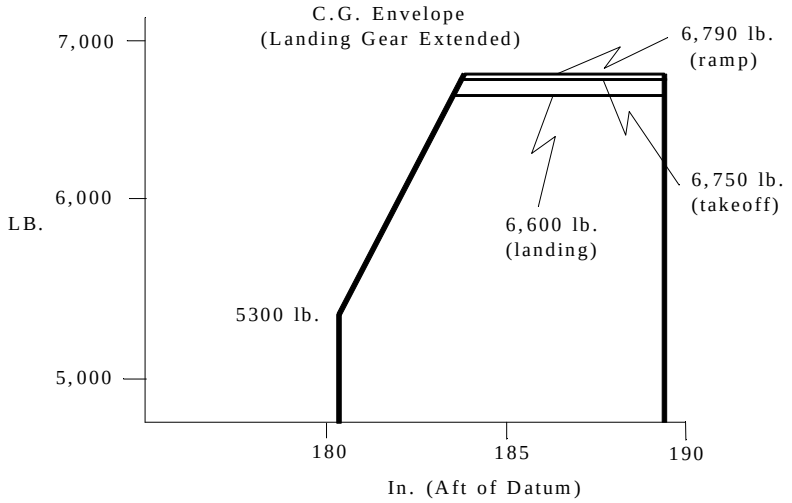
Airspeed limits

	KTS (CAS)	MPH (CAS)
Vne (Never exceed)	243	280
	Sea level to 18,000 ft.	
	M = 0.51 above 18,000 ft.	
Vno (Max. structural cruising)	208	240
	Sea level to 18,000 ft.	
	M = 0.44 above 18,000 ft.	
Va (Maneuvering)	161	185
Vfe (Max. flap extended)		
Takeoff	156	180
Approach and landing	130	150
Vlo (Landing gear operating)		
Retraction	139	160
Extension	156	180
Vle (Landing gear extended)	156	180
Vmc (Minimum control)	76	87

C.G. range (landing gear extended)

19.95% MAC (+ 184.8) to 28% MAC (+ 189.5) at 6,790 lb.
19.75% MAC (+ 184.6) to 28% MAC (+ 189.5) at 6,750 lb.
12.50% MAC (+ 180.3) to 28% MAC (+ 189.5) at 5,300 lb. or less

Straight line variation between points given.
Moment change due to retracting landing gear: ΔM = 3425 in.-lb.



Empty weight C.G. range

None

Leveling means

Across and along floor seat tracks. (Use bubble scale.)

Maximum weight

Ramp	6,790 lb.
Takeoff	6,750 lb.
Landing	6,600 lb.

No. of seats

Maximum 6 (Pilot at + 157.8)
See JCAB Approved Airplane Flight Manual for loading instructions.

Maximum baggage

700 lb. total (300 lb. at +82.7 and 400 lb. at +303.1)

Fuel capacity

210 U.S. gal. total (2 wing tanks at 105 gal. each)
208 U.S. gal. usable at +199.7
See Note 1 for weight of unusable fuel.

Oil capacity

24 qt. (12 qt. in each engine at +133.9)
See Note 1 for weight of undrainable oil.

Maximum operating altitude

25,000 ft.

Control surface movements

Wing flaps	Maximum		Down	35°
Main surfaces (Measured normal to hinge line except rudder parallel to WP)				
Aileron	Up	22.5°	Down	17.5°
Elevator	Up	19°	Down	15°
Rudder	Right	25°	Left	20°
Trim tabs (Measured normal to hinge line)				
Aileron	Up	16°	(Aileron in neutral)	
	Down	16°	(Aileron in neutral)	
Elevator	Up	10°	(Elevator full up)	
	Down	28.5°	(Elevator full down)	
Rudder	Left	36°	(Rudder full right)	
	Right	20°	(Rudder full left)	

Detail rigging information is contained in Section VII of Fuji 700 Maintenance Manual, FSD-E1864.

Serial Nos. eligible

The Government of Japan Civil Aviation Bureau Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft for which application for U.S. airworthiness certification is made.

II - Model 710 (Normal Category), approved April 1, 1980

Engine

Two Lycoming TIGO-541-D1B

Fuel 100/130 minimum grade aviation gasoline or 100 L L

Engine limits

For all operations, 3,200 r.p.m. (450 hp.) 48.4 in. Hg MP up to 18,800 ft. altitude in standard atmosphere. Above 18,800 ft., the following maximum MP applies for maximum r.p.m.:

Altitude (ft.)	Max. Allowable MP. (in.Hg)
18,800	48.4
19,000	48.0
20,000	46.0
21,000	44.5
22,000	43.2
23,000	41.4
24,000	39.6
25,000	38.3

Propeller and propeller limits

Two Hartzell HC-C3YN-2LDUF/FJC9684-3R 3-blade full feathering
Pitch setting at 30 in. station:
Low 19.0° $\pm$ 0.1°
High 86.1° $\pm$ 0.5° (feathered)

Diameter: 93 inches

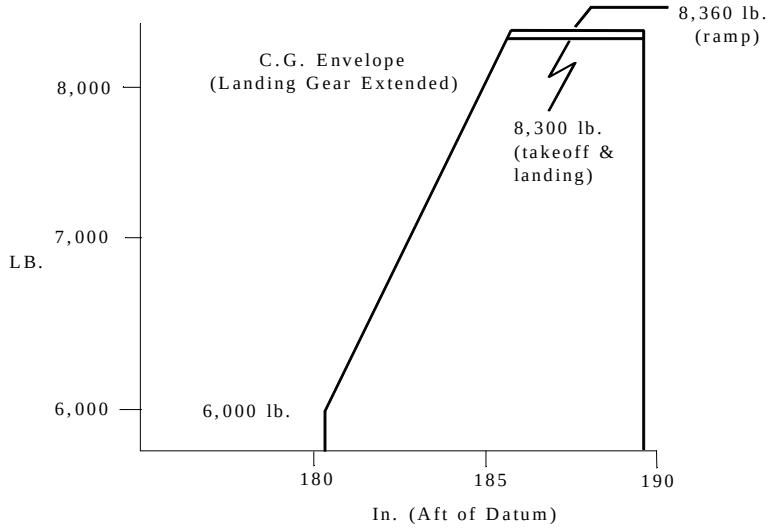
No cutoff for repairs permitted.

Airspeed limits

	KTS (CAS)	MPH (CAS)
Vne (Never exceed)	258	297
	Sea level to 17,000 ft.	
	M = 0.54 above 17,000 ft.	
Vno (Max. structural cruising)	208	240
	Sea level to 17,000 ft.	
	M = 0.44 above 17,000 ft.	
Va (Maneuvering)	176	202
Vfe (Max. flap extended)		
Takeoff	156	180
Approach and landing	143	165
Vlo (Landing gear operating)	156	180
Vle (Landing gear extended)	156	180
Vmc (Minimum control)	81	93

C.G. range (landing gear extended)

22.25% MAC (+ 186.1) to 28% MAC (+ 189.5) at 8,360 lb.
22.00% MAC (+ 186.0) to 28% MAC (+ 189.5) at 8,300 lb.
12.50% MAC (+ 180.3) to 28% MAC (+ 189.5) at 6,000 lb. or less
Straight line variation between points given.
Moment change due to retracting landing gear: ΔM = 4,855 in.-lb.



Empty weight C.G. range

None

Maximum weight

Ramp	8,360 lb.
Takeoff	8,300 lb.
Landing	8,300 lb.

No. of seats

Maximum 6 (Pilot at + 157.8)
See JCAB Approved Airplane Flight Manual for loading instructions.

Maximum baggage

700 lb. total (300 lb. at +82.7 and 400 lb. at +303.1)

Fuel capacity

282 U.S. gal. total (2 wing tanks, 141 gal. each)
280 U.S. gal. usable at +199.0
See Note 1 for weight of unusable fuel.

Oil capacity

38 qt. (19 qt. in each engine at +137.8)
See Note 1 for weight of undrainable oil.

Maximum operating altitude: 25,000 ft.

Control surface movements

Wing flaps	Maximum		Down	35°
Main surfaces (Measured normal to hinge line except rudder parallel to WP)				
Aileron	Up	22.5°	Down	17.5°
Elevator	Up	19°	Down	15°
Rudder	Right	17.5°	Left	22.5°
Trim tabs (Measured normal to hinge line)				
Aileron	Up	16°	(Aileron in neutral)	
	Down	16°	(Aileron in neutral)	
Elevator	Up	5.5°	(Elevator full up)	
	Down	27.5°	(Elevator full down)	
Rudder	Left	27°	(Rudder full right)	
	Right	24°	(Rudder full left)	

Detail rigging information is contained in Section VII of Fuji 710 Maintenance Manual, FSD-E1958.

Serial Nos. eligible: The Government of Japan Civil Aviation Bureau Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft for which application for U.S. airworthiness certification is made.

DATA PERTINENT TO ALL MODELS

Datum: Sta. 0 is 121.26 in. ahead of baggage compt. side of fwd pressure bulkhead.

Leveling means: Across and along floor seat tracks. (Use bubble scale)

Certification basis: FAR 21.29, FAR Part 23 effective February 1, 1965, including Amendments 23-1 through 23-14 inclusive and Special Conditions No. 23-78-PC-1 issued by FAA Headquarters, Washington, D.C., on August 12, 1977, and as amended on March 17, 1980, to include the Fuji Model 710 airplane. Compliance has also been shown with FAR 36 noise requirements. Satisfactory finding under the Noise Control Act of 1972 completed February 17, 1977. Negative Environmental Declaration Statement prepared February 4, 1977. Date of Application for Type Certificate July 29, 1974. Type Certificate A8PC issued September 30, 1977 for the Model 700 and amended on April 1, 1980 to include the Model 710.

Import requirements: A U.S. Standard Certificate of Airworthiness may be issued on the basis of a Japanese Certificate of Airworthiness for Export signed by an authorized representative of the Japan Civil Aviation Bureau containing the following statement:

"The airplane covered by this certificate has been examined, tested, and found to conform to the type design approved under U.S. Type Certificate A8PC and to be in a condition for safe operation."

Service information: Information essential for the proper maintenance of the airplane is contained in Fuji Maintenance Manual:

FSD-E1864 for Model 700
FSD-E1958 for Model 710

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification. Appendix C to the JCAB Approved Airplane Flight Manual identifies the required and optional equipment approved by the JCAB for each airplane. The Master Equipment List, Fuji Report FSD-E1955, identifies all required and optional equipment for the Models 700 and 710 airplane. A copy of this document is retained at the FAA, Pacific-Asia Region, Engineering and Manufacturing District Office.

In addition, the following items of equipment are required:

1. Japan Civil Aviation Bureau Approved Airplane Flight Manual.

2. In accordance with FAR 45.11 and FAR 45.13, Aircraft Identification Plate, Fuji P/N F-0689-1.

3. Horn-landing gear/stall warning indicator, Safe Flight Instrument Corp. P/N 284.

NOTE 1.

(a) Current weight and balance report including list of equipment included in the certificated empty weight must be in each aircraft at the time of original airworthiness certification and at all times thereafter. The weight and balance computations are included as Appendix B to the JCAB Approved Airplane Flight Manual.

(b) The certificated empty weight and corresponding center of gravity location must include undrainable oil and unusable fuel as follows:

Undrainable oil	4.74 lb.	(2.53 qt. at +140.2)	(700)
	6.17 lb.	(3.29 qt. at +137.8)	(710)
Unusable fuel	12.0 lb.	(2 gal. at +204.7)	(700/710)

NOTE 2. All placards, including instrument markings, required in the limitation section of the JCAB Approved Airplane Flight Manual must be installed in the appropriate locations on the aircraft. Each individual aircraft must be identified with a placard which specifies approved types of operation; e.g., VFR or IFR as limited by the equipment installed. No landing is permitted when the cabin is pressurized. Operation into known or forecast icing conditions is prohibited.

NOTE 3. An airframe service life has been established:

10,000 flight hours (700)
14,690 flight hours (710)

In addition, the following retirement lives of structural components have been established for the Model 710:

Forward pressure bulkhead plenum assembly	13,460 hr.
Aft pressure bulkhead center beam bolts	11,550 hr.
Right-hand side windshield glass	11,550 hr.

NOTE 4. Engine tachometer of Model 700 shall be calibrated annually to avoid inadvertent operation above 2500 r.p.m.

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