FEDERAL AVIATION ADMINISTRATION

A5PC
DE HAVILLAND
DH 82A

August 15, 1968

TYPE CERTIFICATE DATA SHEET NO. A5PC

This data sheet which is a part of type certificate No. A5PC 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 — Harry E. Williams
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I - De Havilland (Australia) Model DH 82A 2POLB (Normal and Utility Category), approved August 5, 1968

Engine — Bristol Siddeley Gipsy Major 1 or 1F or 1C or 1J
General Motors - Holden's Gipsy Major 1

Fuel — Gipsy Major 1 - Minimum grade 69 Octane, lead content - nil. (Fuels containing not more than 3.33 mls. Tetra Ethyl lead/U.S. gallon may be used provided aluminum alloy cylinder heads, or aluminum-bronze cylinder heads modified to incorporate steel exhaust valve seat inserts, are installed.)

Gipsy Major 1F - Minimum grade 69 Octane, containing not more than 3.33 mls. Tetra Ethyl lead/U.S. gallon.

Gipsy Major 1C - Minimum grade 77 Octane, containing not more than 3.33 mls. Tetra Ethyl lead/U.S. gallon.

Gipsy Major 1J - Minimum grade 80 Octane, containing not more than 3.33 mls. Tetra Ethyl lead/U.S. gallon.

Engine limits

Gipsy Major 1 - and 1F
Maximum takeoff and climb (60 minutes limit): 2100 rpm (122 bhp)
Maximum continuous (sea level) 2100 rpm (112 bhp)
Maximum overspeed, full throttle (5 minutes limit) 2400 rpm

Gipsy Major 1C -
Maximum takeoff and climb (60 minutes limit): 2100 rpm (130 bhp)
Maximum continuous (sea level) 2100 rpm (120 bhp)
Maximum overspeed, full throttle (5 minutes limit): 2400 rpm

Gipsy Major 1J -
Maximum takeoff and climb (60 minutes limit): 2400 rpm (142 bhp)
Maximum continuous (sea level) 2300 rpm (138 bhp)
Maximum overspeed, full throttle (5 minutes limit): 2550 rpm

Propellers	Manufacturer	Gipsy Major 1, 1F and 1J	Diameter (ft.)	Pitch (ft.)
	Geo Adams and Son	A16	6.33	5.25
	"	A37	6.58	4.58
	"	A44	6.50	4.58
	"	A49	6.75	4.17
	"	DH5220/H/26	6.33	4.92
	De Havilland	DH5212/D	6.17	5.42
	"	DH5218/B	6.50	5.10
	"	DH5220/B	6.33	5.08
	"	DH5220/G	6.33	4.58
	"	DH5220/H	6.33	4.92
	"	DH5220/K	6.33	5.00
	"	DH5220/L	6.33	4.75
	"	DH5220/M	6.33	4.50
	"	DH5220/P	6.33	4.58
	"	DH5232/A	6.50	5.10
	"	DH5232/B	6.50	5.30
	Lang Propellers	LA506/3	6.50	4.35
	"	LA594/2	6.50	4.35
	"	LA596	6.50	5.00
	"	LA604	6.50	4.58
	Perfectus Airscrew Co.	F5	6.17	5.42
	"	PA-1	6.33	5.25
	"	PA12	6.33	4.92
	"	PA13	6.33	4.75
	"	PA14	6.33	4.58
	"	PA15	6.50	4.58
	"	PA20	6.42	5.25
	"	PA21	6.50	5.25
	"	PA22	6.50	4.33
	"	PA25	6.66	4.08
	"	PA31	6.75	4.50
	"	PA44-08	6.75	4.08
	"	PA44-33	6.50	4.33
	"	PA44-75	6.33	4.75
	"	PA44-92	6.33	4.92
	"	PA44-425	6.33	5.25
	"	PA44-525	6.42	5.25
	"	PA44-625	6.50	5.25
	"	PA44-658	6.50	4.58
	"	PA44-992	6.75	3.86
	Airscrew Co.	ZD5220/1	6.33	4.83
	"	Z973	6.23	5.50
	"	Z3101/1	6.42	5.22
	Fairey Reed	A66016/X4	7.00	4.58
	"	C66969/X1	5.92	4.50
	"	67104A/X4	7.00	4.77
	"	67104A/X7	7.00	4.71
	"	67104A/X10	7.00	4.60
	"	67104A/X14	7.00	4.52
	"	67575A/X1	7.00	4.71
	"	84723A/X1	7.00	4.84
	"	94234A/X1	6.20	5.85
		Gipsy Major 1C		
	De Havilland	DH5220/P	6.33	4.58
	Airscrew Co.	Z8010	6.84	3.53
	Fairey Reed	B104951/X2	6.75	5.02
	"	A66875/X4	6.50	5.84

Airspeed limits (IAS)	Never exceed 139 knots (160 m.p.h.)	
C.G. range	(+10.2) to (+16.5) when anti-spinning strakes not fitted (+10.2) to (+17.0) when anti-spinning strakes are fitted	
Empty weight C.G. range	None	
Datum	Leading edge of the lower mainplane at the root, which is 14.2 inches aft of the front levelling stud on the right hand side of the front fuselage (joint E).	
Leveling means	Longitudinal:	Straight-edge on the studs on the outside of the fuselage right hand top longeron.
	Lateral:	Straight-edge clamped to underside of left hand and right hand top longerons in the front cockpit.
Maximum weight	1825 lb. normal category 1770 lb. utility category	
No. of seats	2 (1 at +17.0, 1 at +49.0)	
Maximum baggage	60 lb. (+76.0)	
Fuel capacity	22.8 U.S. gal. (1 tank in upper mainplane at -5.8) 12 U.S. gal. or 14.4 U.S. gal. auxiliary (1 tank in fuselage at -8.2)	
Oil capacity	2.5 U.S. gal. (-9.5)	
Control surface movements	Elevator:	Up 11 1/2 $\pm$ 3/4 inches at T.E. Down 8 $\pm$ 1/2 inch at T.E.
	Rudder:	14 1/2 inches left and right at T.E.
	Aileron:	8 inches up at T.E. 1 1/4 inches down at T.E.
	Slat travel:	3 1/4 inches
ertification basis	FAR 21.29 (FAA letter of February 6, 1968) Type Certificate No. A5PC issued August 5, 1968 Date of application for Type Certificate - July 7, 1968	
Import requirements	A U.S. Airworthiness Certificate may be issued on the basis of an Australian Certificate of Airworthiness for Export signed by the Director-General of Civil Aviation or his authorized delegate containing the following statement: "The aircraft covered by this Certificate has been examined and found to meet the airworthiness requirements of the Commonwealth of Australia current at the time of certification of the first of the type in Australia and has been modified to comply with all Air Navigation Orders requiring its modification as a condition of the continued validity of its Certificate of Airworthiness. The aircraft conforms to Type Certificate No. A5PC."	
Serial Nos. eligible	An Australian Certificate of Airworthiness for Export endorsed as noted under "Import requirements" must be submitted for each individual aircraft for which application for a U.S. Airworthiness Certificate is made. The Australian Certificate of Airworthiness for Export is valid as a basis for issue of the U.S. Airworthiness Certificate for period of 60 days. If application for U.S. certification is made after 60 days from the date of issue of the Australian export certificate, this certificate must be reissued.	
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see "Certification basis") must be installed in the aircraft for certification.	

NOTE 1. Current weight and balance report, including list of equipment in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

NOTE 2. The following placards must be displayed:

(1) "Speed must not exceed 139 knots (160 m.p.h.)"

(2) Engine limitations:

(a) Gipsy Major 1 and 1F.
"Normal Full r.p.m. 2100 Max. permissible for not more than 5 mins. 2400 r.p.m."

(b) Gipsy Major 1C
"Normal full r.p.m. 2100 Max. permissible for not more than 5 mins. 2400 r.p.m."

(c) Gipsy Major 1J
"Normal full r.p.m 2400 Max. permissible for not more than 5 mins. 2550 r.p.m."

(3) "Smoking prohibited"

(4) "Normal Category. Maximum design weight 1825 lbs. No acrobatic maneuvers including spins approved."

(5) "Utility Category. Maximum design weight 1770 lbs. No acrobatic maneuvers approved except those listed below.

Maneuver	Entry Speed
Chandelles	105 knots (120 m.p.h.)
Lazy eights	105 knots (120 m.p.h.)
Steep turns	80 knots (92 m.p.h.)
Stalls (except whip stalls)	Slow deceleration
Spins	Slow deceleration

(6) "Maximum baggage 60 lbs. For additional loading instructions, see Weight and Balance Data."

NOTE 3. The aircraft must be assembled in accordance with the rigging instructions of the De Havilland Maintenance Manual.

NOTE 4. The aircraft must be flight checked after assembly.

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