DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A22EU
Revision 5
De Havilland Support Limited
Beagle B.121
Series 1, 2, 3
March 1, 2012

TYPE CERTIFICATE DATA SHEET No. A22EU

This data sheet, which is a part of Type Certificate No. A22EU 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	De Havilland Support Limited Building 213 Duxford Airfield Cambridgeshire CB2 4QR
Type Certificate Holder Record	British Aerospace, Aircraft Group Scottish Division transferred TC A22EU to De Havilland Support Limited in October 2002

Type Certificate Ownership Record

(1) This TC was considered not valid by the state of design on June 19, 2007, and has been replaced by European Aviation Safety Agency (EASA) Specific Airworthiness Specification (SAS) number EASA.SAS.A.082, issued June 19, 2007. Only standard airworthiness certificates issued prior to March 1, 2012 are valid.

(2) Future unsafe conditions existing in the aircraft may result in the revocation of the airworthiness certificates of the aircraft if there is no entity to comply with 14 CFR § 21.99(a), "Required design changes."

(3) Replacement parts may not be available in the future.

I - Model B.121 Series 1 2PCLM (Normal and Utility Category), Approved January 11, 1969.

Engine	Rolls-Royce/Continental O-200-A
Fuel	80/87 minimum grade aviation gasoline
Engine limits	For all operations 2750 r.p.m. (100 h.p.)
Propeller	McCauley IA105/SCM7053 Diameter range 70" max. - 68.5" min. Static r.p.m. at maximum permissible throttle setting (Cross wind): Not over 2400, not under 2300 No additional tolerance permitted.

Airspeed Limits (IAS)

	Knots	M.P.H.
Vne (Never exceed)	150	173
Vno (Max. structural cruising)	120	138
Va (Maneuvering)	110	127
Vfe (Flaps extended 0° to 40°	100	115

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C.G. range	Normal Category (+66.1) to (+71.2) at 1470 lb. or less (+67.5) to (+71.2) at 1600 lb. Utility Category (+66.1) to (+69.1) at 1470 lb. or less (+67.5) to (+69.1) at 1600 lb. Straight line variation between points given
Empty weight C.G. range	None
Maximum weight	1600 lb.
Number of seats	2 (+78)
Maximum baggage	85 lb. (+100)
Fuel capacity	29 U.S. gallons usable (+65.1) (See Note 1 for data on unusable fuel).
Oil capacity	1.0 U.S. gallons usable (+15) (See Note 1 for data on system oil).

Control surface movements

Wing flaps	Up	0°	Down	39.5°
Aileron	Up	28°	Down	12°
Elevator	Up	30°	Down	20°
Elevator trim tab	Up	13°	Down	32°
Rudder	Left	25°	Right	25°

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see CERTIFICATION BASIS) must be installed in the aircraft for certification. Beagle Report TECH/B121/62 contains a list of all required equipment as well as optional equipment installations approved by the A.R.B.
In addition, the following item of equipment is required:

a) Stall Warning Indicator (Safeflight 164)
b) ARB Approved Flight Manual Doc. No.B.S.3/5 dated 6th September 1968.

II - Model B.121 Series 2 4PCLM (Normal Category), 2PCLM (Utility Category), Approved January 11, 1969.
(Same as Model B.121 Series 1, except for power plant installation).

Engine	Lycoming O-320-A2B
Fuel	80-87 minimum grade aviation gasoline
Engine limits	For all operations 2700 r.p.m. (150 h.p.)
Propeller	Sensenich M74DMS-0-60 Diameter range 74" max. - 72" min. Static r.p.m. at maximum permissible throttle setting (cross wind): Not over 2400, not under 2200 No additional tolerance permitted.

Airspeed limits (IAS)

	Knots	M.P.H.
Vne (Never exceed)	150	173
Vno (Max. Structural cruising)	120	138
Va (Maneuvering)	110	127
Vfe (Flaps extended 0° to 40°) 100	115	

C.G. range

Normal Category
(+62.8) to (+71.6) at 1250 lb. or less
(+63.5) to (+71.6) at 1600 lb.
(+65.8) to (+71.6) at 1800 lb.
(+67.6) to (+71.2) at 1925 lb.

Utility Category
(+62.8) to (+69.1) at 1250 lb. or less
(+63.5) to (+69.1) at 1600 lb.
(+65.2) to (+69.1) at 1750 lb.
Straight line variation between points given

Empty weight C.G. range: None

Maximum weight: 1925 lb. Normal Category
1750 lb. Utility Category

Number of seats: 2 (+78) (See Note 4)

Maximum baggage: 120 lb. (+124)

Fuel capacity: 29 U.S. gallons usable (+65.1).
Optional extra tankage 14 U.S. gallons usable (+65.1) (See Note 1 for data on unusable fuel).

Oil capacity: 1.5 U.S. gallons usable (+12) (See Note 1 for data on system oil).

Control surface movements

Wing flaps	Up	0°	Down	39.5°
Aileron	Up	28°	Down	12°
Elevator	Up	30°	Down	20°
Elevator trim tab	Up	13°	Down	32°
Rudder	Left	25°	Right	25°

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. Beagle Report TECH/B121/76 contains a list of all required equipment as well as optional equipment installations approved by the A.R.B.
In addition, the following item of equipment is required:
a) Stall Warning Indicator (Safe Flight 164)
b) A.R.B. Approved Flight Manual Doc. No.B.S.3/6 dated 6th September 1968.

III - Model B.121 Series 3 2PCLM (Normal) and Utility Category, Approved 19 January 1970.
(Same as Model B.121 Series 1, except for power plant installation).

Engine: Lycoming O-320-D2C.

Fuel: 91/96 minimum grade aviation gasoline

Engine limits: For all operations 2700 r.p.m. (160 h.p.)

Propeller 1. Sensenich M74DMS-0-62
Diameter range 74" max. - 72" min.
Static r.p.m. at maximum permissible throttle setting (cross wind):
Not over 2400, not under 2200
No additional tolerance permitted.

2. Sensenich 74DM655-0-62
Diameter range 74" max. - 72" min.
Static r.p.m. at maximum permissible throttle setting (cross wind):

Not over 2400, not under 2200
No additional tolerance permitted.

Airspeed limits (IAS)

	Knots	M.P.H.
Vne (Never exceed)	150	173
Vno (Max. Structural cruising)	120	138
Va (Maneuvering)	110	127
Vfe (Flaps extended 0° to 40°) 100	115	

C.G. range

Normal Category
(+62.8) to (+71.6) at 1250 lb. or less
(+63.5) to (+71.6) at 1600 lb.
(+66.2) to (+71.6) at 1825 lb.
(+67.6) to (+71.2) at 1950 lb.

Utility Category
(+62.8) to (+69.1) at 1250 lb. or less
(+63.5) to (+69.1) at 1600 lb.
(+65.2) to (+69.1) at 1750 lb.
Straight line variation between points given

Empty weight C.G. range

None

Maximum weight

1950 lb. Normal Category
1750 lb. Utility Category

Number of seats

2 (+78) (See Note 4)

Maximum baggage

120 lb. (+124)

Fuel capacity

42 U.S. gallons usable (+65.1)
(See Note 1 for data on unusable fuel).

Oil capacity

1.5 U.S. gallons usable (+15)
(See Note 1 for data on system oil).

Control surface movements

Wing flaps	Up	0°	Down	39.5°
Aileron	Up	28°	Down	12°
Elevator	Up	27°	Down	25°
Elevator trim tab	Up	13°	Down	35°
Rudder	Left	25°	Right	25°

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for type certification. Beagle Report TECH/B121/89 contains a list of all required equipment as well as optional equipment installations approved by the A.R.B.
In addition, the following item of equipment is required:

a) Stall Warning Indicator (Safe Flight 164)
b) A.R.B. Approved Flight Manual Doc. No.B.S.3/8 dated 16 October, 1969.

SPECIFICATIONS PERTINENT TO ALL MODELS

Datum	Fuselage station zero which is situated 73.0 ins. forward of the weighing reference station which is marked on a plate on the fuselage.
Leveling means	Holes for datum pins on which straight edge is placed are located at Stns. 104 and 128.5 on left side of fuselage for longitudinal levelling and on each side of door frame at Stn. 100 for lateral levelling.
Serial Nos. eligible	Only those aircraft serials holding a standard airworthiness certificate issued prior to March 1, 2012 are eligible. The United Kingdom Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft for which application for certification is made.
Import Requirements	None eligible after March 1, 2012. Previous to this date: A United States Airworthiness Certificate may be issued on the basis of a U.K. Certificate of Airworthiness for Export signed by a representative of the Board of Trade containing the following statement: "The aircraft covered by this Certificate has been examined and found to comply with U.S. Federal Aviation Regulation FAR 23 effective February 1, 1965, including amendments 23-1 through 23-6 and conforms to Type Certificate A22EU".
Certification basis	FAR 21.29, FAR 23, effective February 1, 1965, including amendments 23-1 through 23-6. Type Certificate No. A22EU issued January 11, 1969. Date of application for type certificate, January 12, 1966.

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

The certificated empty weight and corresponding centre of gravity location must include unusable fuel of 7 lb. (+65.1), (Series 1, 2 and 3) and system oil of 4 lb. (+15 Series 1) (+12 Series 2 and 3).

NOTE 2. The following placards must be displayed in full view of the pilot:

THIS AIRPLANE MUST BE OPERATED AS A NORMAL OR UTILITY CATEGORY AIRPLANE IN COMPLIANCE WITH THE APPROVED AIRPLANE FLIGHT MANUAL.
ALL MARKINGS AND PLACARDS ON THIS AIRPLANE APPLY TO ITS OPERATIONS AS A UTILITY CATEGORY AIRPLANE. FOR NORMAL CATEGORY OPERATIONS REFER TO THE AIRPLANE FLIGHT MANUAL. NO ACROBATIC MANOEUVRES, INCLUDING SPINS, ARE APPROVED FOR NORMAL CATEGORY OPERATIONS.

FOOTNOTE:
All placards required in the approved airplane Flight Manual must be installed in the appropriate locations.

NOTE 3. Each individual airplane will be supplied with a placard that specifies the kind of operation, such as V.F.R., I.F.R., day or night, to which the operation of the airplane is limited by the equipment installed.

NOTE 4. One or two additional rear seats (+110) may be installed in B.121 Series 2 and 3 airplanes to A.R.B. approved Beagle modifications Nos. BE.23 or BE.22 respectively.

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