

SECTION 1: Aircraft Design Definitions

1.1 Aircraft built to conform with CAA-UK Type Certificate Data Sheet BA21 Issue 4

1.1.1.I OA7 Optica Series 100/200

1.1.1.II Certification Basis

The following requirements are the basis of certification of the type design:

BCAR Section C - Engines and Propellers - Issue 13 dated August 1981
BCAR Section K - Light Aeroplanes - Issue 6 dated April 1974
BCAR Section J - Electrical - Issue 3 dated September 1976
BCAR Section R - Radio - Issue 4 dated April 1974
BCAR Section N - Noise - Issue 2 dated November 1978
BCAR Blue Papers: K600 dated April 1982
647 dated November 1979
673 dated March 1978
731 dated August 1979
738 dated September 1979
775 dated April 1982
CAA Airworthiness Notices: No.33 dated February 1972
No 53 dated June 1970
No.54 dated June 1970
No.91 dated November 1980

1.1.1.III Technical Characteristics and Operating Limitations

Engine	One Avco Lycoming IO-540-V4A5D
Propeller	Hoffman HO-E315/122EW or 122EZ 5 bladed fixed pitch ducted fan Diameter 47.71 inches Maximum r.p.m. 2700
Fuel	100 LL Aviation Gasoline
Airspeed Limits	Refer to AFM
C.G. Range	Refer to AFM
Maximum Weight	Max. Take-off and landing 2900lbf Max. Zero Fuel Weight 2734lbf
Max. Number of Occupants	Three including one pilot
Maximum Baggage	Refer to AFM

Fuel Capacity	Usable fuel per tank both tanks	55 Imperial Gallons
	Total Capacity both tanks	56.32 Imperial Gallons
	Unusable fuel both tanks	1.32 Imperial Gallons unusable
Oil Capacity	1.7 Imperial Gallons	
Tyre pressures	Nose wheel	54 lbf/in ²
	Main wheels	42 lbf/in ²
Stall Warning	Artificial stall warning is provided aurally by equipment consisting of a vane and horn.	
Flight Manual	Series 100/200 OA7/TP/01	

1.1.2.I OA7 Optica Series 301

All details are the same as the 100 and 200 series except the approved AFM is OA7/TP/23.

1.2 Data Pertinent to all Models

1. Fuselage Datum

Leading edge of the wing root.

2. Weight and Balance

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.

3. Placards

All placards that are required by the Flight Manual must be installed in the appropriate locations.

SECTION 2: Airworthiness Directives

Airworthiness Directives issued by EASA and CAA-UK apply.

- 001-12-88 - OA7/SB/0040 - Engine pod mounting feet – Inspection and rectification. - Applicable to all aircraft. Compliance and requirement as detailed in Service Bulletin.
- 011-03-89 - OA7/SB/0013 - Flap switch – Replacement of guard and switch. - Applicable to aircraft Serial Nos. OA7-005 through OA7-010. Compliance and requirement as detailed in Service Bulletin.
- 012-03-89 - OA7/SB/0014 - Nosewheel bungee – Inspection and rework. - Applicable to aircraft Serial Nos. OA7-005 through OA7-010. Compliance and requirement as detailed in Service Bulletin.
- 013-03-89 - OA7/SB/0018 - Fuel tanks calibration – Revision of tolerances in maintenance manual. - Applicable to all aircraft. Compliance and requirement as detailed in Service Bulletin.

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- 014-03-89 - OA7/SB/0021 - Aileron spring box – Addition of maintenance procedure. - Applicable to all aircraft. Compliance and requirement as detailed in Service Bulletin.
- 015-03-89 - OA7/SB/028 - Alternator RF filter leads – Mounting revision. - Applicable to aircraft Serial Nos. OA7-005 through OA7-010. Compliance and requirement as detailed in Service Bulletin.
- 016-03-89 - OA7/SB/0030 - Engine oil breather pipe – Replacement. - Applicable to aircraft Serial Nos. OA7-005 through OA7-012. Compliance and requirement as detailed in Service Bulletin.
- 017-03-89 - OA7/SB/0029 - Flight Manual – Issue of General Revision 1. - Applicable to aircraft Serial Nos. OA7-005 through OA7-010. Compliance and requirement as detailed in Service Bulletin.
- 018-03-89 - OA7/SB/0037 - Electrical wiring – Inspection and restraint. - Applicable to all aircraft. Compliance and requirement as detailed in Service Bulletin.
- 019-03-89 - OA7/SB/0038 - Elevator trim system – Addition of secondary locking and fairlead in port tail fin. - Applicable to aircraft Serial Nos. OA7-003 - OA7-010 and OA7-016. Compliance and requirement as detailed in Service Bulletin.
- 020-03-89 - OA7/SB/0039 - Alternator master switch – Insulation of terminals. - Applicable to aircraft Serial Nos. OA7-003 through OA7-016. Compliance and requirement as detailed in Service Bulletin.
- 004-05-90 - OA7/SB/0042 - Fan (propeller) assembly – Inspection. - Applicable to all aircraft. Compliance and requirement as detailed in Service Bulletin.
- 015-08-93 - B2/MSB/1 - Flying control system bellcrank assemblies. - Applicable to aircraft up to and including Constructors No. OA7-021. Compliance and requirement as detailed in Service Bulletin.
- 007-01-94 - B2/MSB/5 - Landing Gear – Nose undercarriage leg retention. - Applicable to aircraft up to and including Constructors No. OA7-022. Compliance and requirement as detailed in Service Bulletin.
- 007-03-94 - OA7/SB/0003 - Elevator – Rebalancing and revision of maintenance procedure. - Applicable to aircraft Serial Nos. OA7-005 through OA7-008. Compliance and requirement as detailed in Service Bulletin.
- 008-03-94 - OA7/SB/0010 - Exhaust support – Inspection and rectification. - Applicable to aircraft Serial Nos. OA7-005 through OA7-008. Compliance and requirement as detailed in Service Bulletin.
- 009-03-94 , OA7/SB/0016, Aileron spring box – Inspection and rectification and change to maintenance schedule., Applicable to aircraft Serial Nos. OA7-005 through OA7-009. Compliance and requirement as detailed in Service Bulletin.
- 010-03-94 , OA7/SB/0040, Engine pod mounting feet – Inspection and rectification., Applicable to all aircraft. Compliance and requirement as detailed in Service Bulletin.
- 010-08-94 , B2/MSB/006, Fan shaft extension. , Applicable to aircraft fitted with the Hoffmann fan and fan shaft extension up to and including Serial No. 022. Compliance and requirement as detailed in Service Bulletin.
- 009-10-96 , B2/SB/007, Replacement of fuel injector linkages. , Applicable to all aircraft. Compliance and requirement as detailed in Service Bulletin.

NOTE

1. Airworthiness Directives published after June 2007 can be found on the EASA website (<http://easa.eu.int>).

2. For availability of Service Bulletins, contact EASA:

Roger.hardy@easa.europa.eu

SECTION 3: Occurrence Reporting

This Specific Airworthiness Specification may be used as a basis for the issue of a Restricted Certificate of Airworthiness in accordance with 21A.173(b)(2) under the following conditions:

- a) The holder of a Restricted Certificate of Airworthiness based on this Specific Airworthiness Specification shall report to the State of Registry all information related to occurrences associated with the operation of the aircraft which affects or could affect the safety of operation¹.
- b) Such reports shall be despatched within 72 hours of the time when the occurrence was identified unless exceptional circumstances prevent this.
- c) The State of Registry shall forward the information received under (a) to the Agency when it relates to failures, malfunctions, defects or other occurrences which cause or might cause adverse effects on the continuing airworthiness of the aircraft.

SECTION 4: Other Limitations

This aircraft is limited to non-commercial operation

¹ AMC 20-8 contains guidance describing the occurrences which are to be reported. This document can be found on the EASA website under Regulations>Certification Specifications:

http://www.easa.europa.eu/doc/Agency_Mesures/AMC_GM/decision_ED_2003_12_RM.pdf

SECTION 5: Change Record

Issue 1	Initial issue 28 June 2007
Issue 2	29 May 2008-05-29
	Correction to designation of fan in 1.1.1.III
	Hoffmann HO-E135/122EW corrected to HO-E315/122EW
	Correction to Service Bulletin in Section 2
	CAA 015-03-89 - OA7/SB/002 Alternator RF filter leads corrected to OA7/SB/028
