
Type Acceptance Report

TAR 98/03

Schleicher ASH 25

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Introduction

This report details the basis on which Type Acceptance Certificate No.98/03 was granted in the standard category in accordance with NZCAR Part 21 Subpart B.

Specifically the report aims to:

- (a) Record the airworthiness certification standard used for type acceptance of the applicable model(s) in New Zealand;
- (b) Summarise any outstanding requirements which must be complied with for the issue of a NZ Airworthiness Certificate to any models covered by the Type Acceptance Certificate.

Foreign Type Certificate Details

Type Certificate: Musterzulassungsschein Nr. 04.364

Issued by: Luftfahrt-Bundesamt, Bundesrepublik Deutschland

Manufacturer: **Alexander Schleicher GmbH & Co.**

Model: **ASH 25**

MCTOW 750 kg (1654 lb.) with water ballast

The certification basis of the ASH 25 is the Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes JAR 22, issue March 15, 1982, at Change 3 dated sept. 13, 1982, and in addition Amendment 22/84/1. Compliance was also shown for JAR 22.375 at Amendment 22/90/1 dated Feb. 12, 1991 (covering winglets). The Data Sheet also references the Preliminary Standards for the substantiation of the stress analysis of sailplane and powered sailplane components made from fiber-glass and carbonfiber-reinforced plastics, issue Jan. 1981.

JAR-22 is an acceptable certification basis for sailplanes and powered sailplanes in accordance with Advisory Circular 21-1A. There are no non-compliances and no special conditions have been prescribed by the Director under 21.23. The ASH 25 is approved for Day VFR flight only.

Type Acceptance Application

The application for New Zealand type acceptance was from the importer and Schleicher agent on behalf of the owner, Alpine Soaring of Omarama, dated 22 September 1997. The First-of-Type example was serial number 104 registered as ZK-GTF.

Type Acceptance Certificate No.98/03 was granted on 28 October 1997.

The ASH 25 is a tandem two-seat 25 metre span (26.4m with winglets) Open Class sailplane. It first flew in 1986 and within a couple of years had set five world records for speed over a triangular course varying from 330 km./ 205.1 miles to 1,380 km/ 857.0 miles. Hans Werner Grosse of Germany has in all set 12 world records flying an ASH-25. It is the production version of the one-off two-place ASW-22-2 using an adaption of the

fuselage of the Akaflieg Stuttgart FS-31. A flight test evaluation measured a best L/D of 54.3 : 1 without turbulator tape or special sealing. An ASH-25 flown by G. Herbaud and J-N. Herbaud of France both won the world multiplace straight distance and goal distance records of 1,383 km./ 859.3 miles in the same flight in 1992.

Type Data

The type data requirements of NZCAR Part 21B Para §21.43 have been satisfied by supply of the following documents:

- (1) Type certificate: LBA Musterzulassungsschein Nr.04.364 issued 22 Dec.1987
Sailplane Data Sheet No. 364 for ASH 25 Issue 5 dated 14.07.1995
- (2) Airworthiness design requirements: Already held by the CAA.
- (3) Certification compliance listing: Compliance Checklist ASH 25 dated 19.03.1990
- (4) Flight manual: Flight Manual for glider model ASH 25 - LBA Approved 8 Dez 1989
CAA Accepted as AIR 2596
- (5) Illustrated Parts Catalogue: None produced
- (6) Maintenance manual and service data for aircraft:
ASH 25 Maintenance Manual/Repair Manual - Nov 87
- (7) Agreement from manufacturer to supply updates of data in (4), (5) and (6):
Letter from Director Alexander Schleicher Segelflugzeugbau dated 04.09.1997.

Additional New Zealand Certification requirements

Compliance with the following additional NZ requirements has been reviewed and were found to be covered by either the original certification requirements or the basic build standard of the aircraft, as noted:

Civil Aviation Rules Part 91

Subpart F - Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.529	ELT - TSO C91a after 1/4/97 (or replacement)	Not applicable until 1 April 1998
91.531	Oxygen Indicators - Volume/Pressure/Delivery	Factory oxygen system available - rear seat fittings standard
A.15	ELT Installation Requirements	FM page 7-16 details preferred ELT location

Civil Aviation Rules Part 104

Subpart C - Equipment and Maintenance Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
104.10	(1) Airspeed Indicator	Fitted as Standard - See Flight Manual Section 2.10
1	(2) Altimeter (Adjustable for barometric pressure)	Fitted as Standard - See Flight Manual Section 2.10
	(4) Safety Harness for each seat	Fitted as Standard - See Flight Manual Section 2.10

Outstanding Requirements

The following additional NZ requirements are not covered by the original certification requirements or the basic build standard of the aircraft and require compliance with before issue of an airworthiness certificate:

Civil Aviation Rules Part 26

Subpart B - Additional Airworthiness Requirements

Appendix B - All Aircraft

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
B.1	Marking of Doors and Emergency Exits	To be determined on an individual aircraft basis

Civil Aviation Rules Part 104

Subpart C - Equipment and Maintenance Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
104.10	(3) Magnetic Compass	To be determined on an individual aircraft basis *
1	(5) A First Aid Kit	To be determined on an individual aircraft basis
	(7) For IMC - (I) A variometer	}
	(ii) Turn & Slip/Artificial Horizon	} Required for IMC Flight *
	(iii) Radio transceiver	}

* All available as Additional Equipment per the MM §12.1

Summary

Type Acceptance Certificate No.98/03 has been granted to the Schleicher ASH 25 and it is now eligible for the issue of a New Zealand Airworthiness Certificate in the Standard Category in accordance with CAR §21.177, subject to the outstanding requirements noted above being met.

Attachments

The following documents form attachments to this report:

- Three-view drawing Schleicher Model ASH 25
- Copy of Type Certificate/ Type Certificate Data Sheet L-364

Sign off

David Gill
Airworthiness Engineer

Date: 28 October 1997