# **Type Acceptance Report** TAR 4/21B/10 **HOFFMANN H 36 DIMONA**

# TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1. INTRODUCTION	1
2. FOREIGN TYPE CERTIFICATE DETAILS	1
3. TYPE ACCEPTANCE CERTIFICATE	2
4. TYPE DATA	2
5. ADDITIONAL NEW ZEALAND REQUIREMENTS	3
ATTACHMENTS	4

# **Executive Summary**

New Zealand Type Acceptance has been granted to the Hoffmann H-36 Dimona based on validation of Austrian Type Certificate Data Sheet number SF 3/82. There are no special requirements for import. The H-36 is now eligible for the issue of an Airworthiness Certificate in the Standard Category in accordance with CAR §21.177, subject to any outstanding New Zealand operational requirements being met. (See Section 5 of this report for a review of compliance of the basic type design with the operating Rules.) Additional variants approved under this TCDS can become type accepted after supply of the applicable documentation, in accordance with the provisions of CAR §21.43(b).

#### 1. Introduction

This report details the basis on which Type Acceptance Certificate No.4/21B/10 was granted in the Standard Category in accordance with NZCAR Part 21 Subpart B.

Specifically the report aims to:

- (a) Specify the foreign type certificate and associated airworthiness design standard used for type acceptance of the model(s) in New Zealand; and
- (b) Identify any special conditions for import applicable to any model(s) covered by the Type Acceptance Certificate; and
- (c) Identify any additional requirements which must be complied with prior to the issue of a NZ Airworthiness Certificate or for any subsequent operations.

# 2. Foreign Type Certificate Details

Type Certificate: Type Certificate Data Sheet No. SF 3/82

Issued by: Bundesamt für Zivilluftfahrt (Now Austro Control – Austrian CAA)

Manufacturer: Hoffmann Flugzeugbau GmbH

Model(s): H 36 "Dimona"

Engine: Limbach L 2000 EB 1.C or AC

Propeller: Hoffmann HO-V62-R/L 160 T or BT

MCTOW 770 kg (1697 lb)

Noise Standard: Zivilluftfahrzeug-Lärmzulässigkeitsverordnung BGBI. 700/1986

The certification basis of the H 36 is the Airworthiness Requirements for Sailplanes and Powered Sailplanes, JAR-22, status 15 March 1982. This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41, as JAR-22 is the basic standard for gliders called up under Advisory Circular 21-1A. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

# 3. Type Acceptance Certificate

The application for New Zealand type acceptance was from the importer Mr D McMillan, received January 2002. (The application was put on hold pending the aircraft rebuild and receipt of data from the manufacturer.) The first-of-type example was serial number 3537, registered ZK-GCB. The H 36 is a two-seat low-wing fibreglass-construction motorglider.

Type Acceptance Certificate No. 4/21B/10 was granted on 4 March 2004 to the Hoffman H 36 based on validation of Austro Control Type Certificate Data Sheet No. SF 3/82. There are no special requirements for import into New Zealand.

The H 36 Dimona was designed by Wolff Hoffmann, who previously worked for Scheibe. The prototype of the all-new design flew in 1980 and a factory was set up to produce it in Friesach, Austria. The aircraft has folding wings and a Limbach 80 bhp flat-four engine driving a Hoffmann three-position two-blade propeller. A shortened wing-span version of the H 36 was extensively developed into the successful Katana family, while the company has evolved to become Diamond Aircraft Industries, based at Wiener-Neustadt.

## 4. 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:

Austro Control Type Certificate Data Sheet Number SF 3/82 Basic Model: H 36 "Dimona" at Issue number 15 dated 08.10.2002

Note: The manufacturer advised that a type certificate does not exist. "Due to the legal situation at the date of certification, a TC was not required."

- (2) Airworthiness design requirements: Already held by the CAA.
- (3) Certification compliance listing:

Compliance Checklist – Type: H 36 "Dimona" dated 5 August 1985

- (4) Flight manual: BAZ-Approved Flight Manual H36 Dimona CAA Accepted as AIR 2859
- (5) Illustrated Parts Catalogue: Parts Catalogue Dimona H.36
- (6) Maintenance manual and service data for aircraft:

Instructions for Continued Airworthiness H36 Dimona – Published 15 Nov 1985 (includes Section 8 Repair and Section 9 Materials.)

Service Bulletin List H-36 "Dimona" – Doc.No. 3.05.00 Chapter 1

(7) Agreement from manufacturer to supply updates of data in (4), (5) and (6):

Letter from Diamond Aircraft Technical Publications dated Jan 15, 2003

# 5. Additional New Zealand Requirements

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 is a prerequisite for the grant of a type acceptance 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
B.2	Crew Protection Requirements - CAM 8 Appdx. B # .35	Not Applicable – Agricultural Aircraft only

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

#### **Civil Aviation Rules Part 91**

#### **Subpart F - Instrument and Equipment Requirements**

#### **Civil Aviation Rules Part 91**

#### **Subpart F - Instrument and Equipment Requirements**

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.505	Shoulder Harness if Aerobatic; >10 pax; Flight Training	JAR §22.785
91.507	Pax Information Signs - Smoking, safety belts fastened	Not Applicable – Two-seat powered glider
91.509	Minimum Instruments and Equipment	Not Applicable – Powered gliders re excluded
91.511	Night VFR Instruments and Equipment	Operational requirement – compliance as applicable
91.513	VFR Communication Equipment	Operational requirement – compliance as applicable
91.517	IFR Instruments and Equipment	Not Applicable – Certificated for VFR flight only
91.519	IFR Communication and Navigation Equipment	Not Applicable – Certificated for VFR flight only
91.523	Emergency Equipment	N/A – Two-seat glider [Superseded by §104.101(5)]
91.529	ELT - TSO C91a after 1/4/97 (or replacement)	Operational requirement – compliance as applicable
91.531	Oxygen Indicators - Volume/Pressure/Delivery	Operational requirement – compliance as applicable
91.533	Oxygen for Non-Pressurised Aircraft	Operational requirement – compliance as applicable
	(required for >30 min above FL100)	
91.541	SSR Transponder and Altitude Reporting Equipment	Operational requirement – compliance as applicable
91.543	Altitude Alerting Device - Turbojet or Turbofan	Not Applicable – Powered-glider
91.545	Assigned Altitude Indicator	Not Applicable – Certificated for VFR flight only
A.15	ELT Installation Requirements	To be determined on an individual aircraft basis

#### **Civil Aviation Rules Part 104**

#### **Subpart C - Equipment and Maintenance Requirements**

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
104.101	(1) Airspeed Indicator	JAR 22.1303(a)(1) – G-FMS-521 Fitted as Standard – See also FM
		§2.3 Minimum Equipment List
	(2) Altimeter (Adjustable for barometric pressure)	JAR 22.1030(a)(2) – 4-FGH-10 Fitted as Standard – See also FM
		§2.3 Minimum Equipment List
	(3) Magnetic Compass	JAR 22.1030(a)(3) – Airpath IC 2300 Fitted as Standard – See also
	(4) Safety Harness for each seat	FM §2.3 Minimum Equipment List
		Fitted as Standard – Flight Manual §2.3 refers to seat belts; Parts
	(5) A First Aid Kit	Catalog calls up Shoulder Strap P/N 18020 as Standard Equipment
	(6) For powered gliders – (i) Fuel quantity gauge	To be determined on an individual aircraft basis
	(ii) Oil pressure gauge	Fitted as Standard – See FM §2.3 Minimum Equipment List
	(iii) Tachometer	Fitted as Standard – See FM §2.3 Minimum Equipment List
	(7) For IMC - (i) A variometer	Fitted as Standard – See FM §2.3 Minimum Equipment List
	(ii) Turn & Slip/Artificial Horizon	
	(iii) Radio transceiver	Not Applicable – Flight in Clouds is forbidden

#### **Attachments**

The following documents form attachments to this report:

Photographs first-of-type example H 36 serial number 3537 ZK-GCB Three-view drawing Hoffmann Flugzeugbau Model H 36 "Dimona" Copy of Austro Control Type Certificate Data Sheet Number SF 3/82

### Sign off

David Gill Team Leader Airworthiness

4 March 2004

Date: