DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

G51EU
Revision 5
Diamond Aircraft Industries
H-36 "DIMONA"
HK 36 R "SUPER DIMONA"

November 24, 1997

TYPE CERTIFICATE DATA SHEET No. G51EU

This Data Sheet, which is a part of Type Certificate No. G51EU 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. Diamond Aircraft Industries
N.A. Otto-Straße 5
A-2700 Wiener Neustadt
Austria

Note: For clarification, model H-36 was designed and manufactured by Hoffman Aircraft. HOAC bought Hoffman Aircraft and designed and manufactured model HK-36R. Subsequently, Diamond Aircraft Industries bought HOAC.

I. Model H36 "Dimona" (Utility Category), approved July 9, 1986.

Engine. Limbach L 2000 EB 1.C

Fuel. Aviation gasoline 100 LL or minimum ROZ 97.5 octane

Engine Limits. For all operations 3400 r.p.m. (80 hp.)

Propeller. Hoffmann HO-V 62-R/L 160 T
Diameter range 65 in. maximum, 61 in. minimum
(No further reduction permitted)
Blade Angle settings - 3 fixed positions: start, cruise, feather
Spinner: Hoffmann VP 30-81

Airspeed Limits (I.A.S.). Maximum airspeed in calm air
Never Exceed (V_{NE})

0 - 6500 ft. alt.	149 kts.	171 m.p.h.	275 km.p.h.
6501-10000 ft. alt.	140 kts.	161 m.p.h.	259 km.p.h.
10001-13000 ft. alt.	133 kts.	153 m.p.h.	246 km.p.h.
13001-16500 ft. alt.	126 kts.	145 m.p.h.	233 km.p.h.
16501-20000 ft. alt.	119 kts.	137 m.p.h.	221 km.p.h.

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Airspeed Limits (I.A.S.).	Never Exceed All Altitudes With airbrakes extended 149 kts. 171 m.p.h. 275 km.p.h. In rough air (V_B) 113 kts. 130 m.p.h. 208 km.p.h. Maneuvering (V_A) 95 kts. 109 m.p.h. 175 km.p.h.
C.G. Range.	10.6 in. to 15.15 in. (270 mm. to 385 mm.) aft of datum if takeoff weight less than 1631 lb. (740 kg.). 10.6 in. to 14.57 in. (270 mm. to 370 mm.) aft of datum if takeoff weight between 1631 lb. (740 kg.) and 1698 lb. (770 kg.).
Empty Weight C.G.	See Flight Manual, page C-2.
Datum.	Wing leading edge at wing root.
Leveling Means.	Tangent to bottomside of wing root horizontal, mid chord.
Maximum Weight.	1698 lb. (770 kg.).
Minimum Crew.	One Pilot (minimum weight 155 lb. (70 kg.)). Solo flights may be conducted from the left seat only.
No. of Seats.	Two, 5.6 in. (143 mm.) aft of datum.
Maximum Baggage.	26 lb. (12 kg.), 32.8 in. (834 mm.) aft of datum.
Fuel Capacity.	80 liters (21 U.S. gal.), 32.8 in. (834 mm.) aft of datum.
Oil Capacity.	2.6 qt. total, 41 in. (1041 mm.) forward of datum.
Control Surface Movements.	Aileron: Up 4 in. ± 0.4 in. (100 mm. ± 10 mm.) Down 1.6 in. ± 0.2 in. (40 mm. ± 5 mm.) Measurement radius 9.25 in. (235 mm.) on inboard edge of aileron. Stabilizer: Up 24 in. ± 0.2 in. (60 mm. ± 5 mm.) Down 24 in. ± 0.2 in. (60 mm. ± 5 mm.) Measurement radius 7.8 in. (200 mm.) in the middle of stabilizer at the rudder. Rudder: Both sides 104 in. ± 0.6 in. (265 mm. ± 15 mm.) Measurement radius 20.9 in. (530 mm.) on bottom of rudder.
Serial Nos. Eligible.	See Import Requirements.

Certification Basis.

FAR 21.23, 21.29 and 21.50 effective February 1, 1965 including Amendments 21-1 through 21-49.

Compliance with FAR 21.23 through Amendment 21-49 has been shown utilizing the provisions of Advisory Circular 21.23-1 dated 12 January 1981, Section 5, paragraph a. The airworthiness requirements met under this provision are the Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR-22) dated 1 April 1980 including Amendment 1, and Section 5, paragraph (e)(6) of Advisory Circular 21.23-1 dated 12 January 1981.

FAR 23.471, 23.473, 23.477, 23.479, 23.481, 23.483, 23.485, 23.493, 23.497, 23.723 and 23.725 effective February 1982 and including amendments 23-1 through 23-28.

Type Certificate No. G51EU, issued July 9, 1986.

Date of Application for Type Certificate: April 4, 1982.

The applicable airworthiness requirements for U.S. certification under FAR 21.29 identified above were established considering the airworthiness requirements applied by the exporting country under the provisions of paragraphs 2 and 6 of the agreement between the United States of America and the Republic of Austria, dated April 30, 1959 titled Certificates of Airworthiness for Imported Aeronautical Products and Components.

Import Requirements.

To be considered eligible for operation in the United States, each aircraft manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states (in the English language): This aircraft conforms to its U.S. type design (type certificate number G51EU) and is in a condition for safe operation.

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g. third party country) is FAR Sections 21.183(d) or 21.183(b).

Hoffmann H36 Dimona, Serial Number 3508, 3509, 3514, 3518, 36152, 36153, 36204 and 36210 are eligible for U.S. Standard Airworthiness Certification when:

1) The FAA inspector is provided with the original Export Certificate of Airworthiness issued by the BAZ which certifies the glider conforms to the foreign type certificate.

2) The glider has been modified in accordance with the BAZ-approved HOFFMANN Service Bulletin No. 16 and,

3) The glider is found to be in safe operation by the FAA inspector.

Modifications pre-dating the issuance of this Type Certificate and not included in paragraph 1 and 2 of this note and modifications dated after the issuance of this Type Certificate not covered by the note contained in the Service Information paragraph of this Type Certificate must be assumed not to be approved under this Type Certificate.

Equipment.

The equipment approved for the HOFFMANN H36 DIMONA is listed in the HOFFMANN H36 DIMONA Master Equipment List dated November 15, 1985.

The Required Equipment for the kinds of approved operations are listed in the BAZ approved Hoffmann H36 Dimona Flight Manual, dated November 15, 1985.

Service Information.

Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is Bundesamt für Zivilluftfahrt approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

Available documents for HOFFMANN H36 "DIMONA":
- Flight manual, BAZ-approved November 22, 1985
- Instructions for Continued Airworthiness dated November 15, 1985.

NOTES.

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 glider at the time of original certification. The certificated empty weight and corresponding center of gravity locations must include the engine oil at 4.4 lb.

NOTE 2. The placards listed in Section 2 of the BAZ-approved Hoffmann H36 Dimona Glider Flight Manual must be displayed.

NOTE 3. Section 6 of the Hoffmann Dimona Instructions for Continued Airworthiness (BAZ-approved November 22, 1985) specifies mandatory replacement times, structural inspection intervals, and related structural procedures. HOAC Austria Service Bulletin No. 25/1, dated August 26, 1991 (BAZ Approved November 5, 1991) modifies specific limited life items and requirements contained in the instructions for Continued Airworthiness. This service bulletin is considered FAA approved and no further changes to these airworthiness limitations may be made without FAA approval.

NOTE 4. All external portions of the glider exposed to sunlight must be painted white except of wing tips, nose of fuselage and rudder.

NOTE 5. Major structural repairs must be accomplished at FAA-certificated repair stations rated for composite aircraft structure work, in accordance with HOFFMANN repair methods approved by FAA.

II. Model HK 36 R "SUPER DIMONA" (Utility Category), approved July 23, 1993.

Engine. Rotax 912 A

Fuel. Aviation gasoline 100 LL or leaded MOGAS, minimum ROZ 96 octane.

Engine Limits. Max. engine speed: 5800 r.p.m.
Power check speed: 5500 r.p.m.

Propeller. Diameter 1.7 meters (67 in.)

Reduced propeller speed, step-down ratio: 1:2.2727 (compared to engine speed)

(a) mt-propeller MTV-1-A/170-08 constant speed propeller
Blade Angle settings - 3 positions: start, automatic, feather
(b) mt-propeller MT 170 R 125-2A fixed pitch propeller
(c) Hoffmann HO14-170 S 123 fixed pitch propeller.

Airspeed Limits (I.A.S.). Maximum airspeed in calm air
Never Exceed (V_{NE})

0 - 6500 ft. alt.	141 kts.	162 m.p.h.	261 km/h
6501- 9800 ft. alt.	133 kts.	153 m.p.h.	246 km/h
9801-13100 ft. alt.	126 kts.	145 m.p.h.	233 km/h
13101-16400 ft. alt.	119 kts.	137 m.p.h.	221 km/h
16401-19600 ft. alt.	113 kts.	130 m.p.h.	210 km/h
With air brakes extended	141 kts.	162 m.p.h.	261 km/h
In rough air (V_{RA})	113 kts.	130 m.p.h.	210 km/h
Maneuvering (V_A)	95 kts.	109 m.p.h.	176 km/h

C.G. Range. 12.52 in. to 16.93 in. (318 mm to 430 mm) aft of reference datum.

Empty Mass C.G. See Maintenance Manual, Section 4.

Reference Datum. Wing leading edge at wing root.

Leveling Means. Top surface of 1000:52.5 wedge horizontal on fuselage tube.

Maximum Mass. 1698 lbs. (770 kg).

Minimum Crew. One pilot (minimum mass 121 lbs. (55 kg)). Solo flights may be conducted from the left seat only.

No. of Seats. Two, 5.63 in. (143 mm) aft of reference datum.

Maximum Baggage. (a) 26 lbs. (12 kg), 28.62 in (727 mm) aft of reference datum if 55 liter tank is installed.
or
(b) 26 lbs. (12 kg), 32.44 in (824 mm) aft of reference datum if 80 liter tank is installed.

Fuel Capacity.

(a) 14.5 US. gal. (55 liters), 28.62 in (727 mm) aft of reference datum

or

(b) 21.1 US gal. (80 liters), 32.44 in (824 mm) aft of reference datum

Oil Capacity.

3.2 qt. (3 liters) total, 41.7 in. (1060 mm) forward of reference datum.

Control Surface Movements.

Aileron:

Up	3.35 in. ± 0.31 in. (85 mm ± 8 mm)
Down	1.65 in. ± 0.24 in. (42 mm ± 6 mm)

Measurement radius 7.68 in. (195 mm).

Stabilizer:

Up	2.36 in. ± 0.20 in. (60 mm ± 5 mm)
Down	1.97 in. ± 0.20 in. (50 mm ± 5 mm)

Measurement radius 7.87 in. (200 mm).

Rudder:

Both sides 10.43 in. ± 0.59 in. (265 mm ± 15 mm)

Measurement radius 20.87 in. (530 mm).

Serial Nos. Eligible.

All HOAC HK 36 R Super Dimona serial numbers.

Certification Basis.

Code of Federal Regulations (CFR), 14 CFR 21, effective February 1, 1965, including Amendments 21-1 through 21-69, Sections 21.17, 21.29 and 21.50.

Compliance with FAR 21.17(b) has been shown utilizing the provisions of Advisory Circular 21.17-2 dated July 13, 1989, paragraph 6(a)(2). The airworthiness requirements met under this provision are the Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR-22), Change 4, dated May 7, 1987, including Amendments through 22/86/1 and paragraphs 6(c)(6) and 6(c)(7) of Advisory Circular 21.17-2 dated July 13, 1989.

Type Certificate No. G51EU was issued July 9, 1986 for the H36 Dimona and amended July 23, 1993 to include the HK 36 R Super Dimona.

Date of Application for Type Certificate: April 4, 1982 (original issue); March 5, 1992 (amendment).

The applicable airworthiness requirements for U.S. certification under FAR 21.29 identified above were established considering the airworthiness requirements applied by the exporting country under the provisions of paragraphs 2 and 6 of the agreement between the United States of America and the Republic of Austria, dated April 30, 1959 titled Certificates of Airworthiness for Imported Aeronautical Products and Components.

Import Requirements.

To be considered eligible for operation in the United States, each aircraft manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states (in the English language): This aircraft conforms to its U.S. type design (Type Certificate Number G51EU) and is in a condition for safe operation.

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Sections 21.183(d) or 21.183(b).

Minimum Equipment.

1 Altimeter
1 Airspeed indicator
1 Magnetic compass
1 Tachometer
1 Running time meter
1 Manifold pressure gauge
1 Oil pressure gauge
1 Oil temperature gauge
1 Cylinder head temperature gauge
1 Fuel gauge
1 Ammeter
1 Deviation table
1 Fuel pressure warning lamp

Service Information.

Service bulletins, structural repair manuals, vendors manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is BAZ approved , are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

NOTES.

NOTE 1.

A current weighing report and the corresponding equipment list must be provided, and the Mass and Balance Form and the Mass and Balance Diagram in Section 6 of the HOAC HK 36 R Super Dimona Flight Manual must be filled out for each powered sailplane at the time of original certification. The weighing procedure given in Section 4 of the HOAC HK 36 R Super Dimona Maintenance Manual is mandatory.

NOTE 2.

The placards listed in Section 4 of the HOAC HK 36 R Super Dimona Maintenance Manual must be displayed.

NOTE 3.

An identification plate according to FAR 45.11(a) must be attached to the fuselage exterior (also see HOAC Service Bulletin No. 35).

NOTE 4.	Section 6 of the HOAC HK 36 R Super Dimona Maintenance Manual specifies mandatory replacement times. These airworthiness limitations may not be changed without FAA approval.
NOTE 5.	All external portions of the powered sailplane exposed to sunlight must be painted white except of the areas of markers and warning marks.
NOTE 6.	Major structural repairs must be accomplished at FAA-certified repair stations rated for composite aircraft structure work, in accordance with HOAC repair methods approved by the FAA.
NOTE 7.	Only industrial manufacturing is allowable.
NOTE 8.	Prior to registration in the U.S.A., all applicable Mandatory Service Bulletins must be carried out.

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