MetAir

AG für angewandte Atmosphärenphysik und Lufthygiene
Flugmessungen und Beratung

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METAIR-DIMO HB-2335 am Mont Blanc im August 2000;Die Instrumente sind in den "underwing-pods"

DIMO HB-2335 TECHNICAL SPECIFICATIONS

Type of aircraft	TMG (Touring Motor Glider) Dimona HK36 TTC-ECO (two seated single engine piston aircraft with long endurance and good aerodynamic performance, with 16.5 m wing span);
Manufacturer	Diamond Aircraft, Wiener-Neustadt, Austria;
Call sign	HB-2335;
Modifications	2 underwing pods for instrumentation (wide enough for 19"/6HU instruments), enhanced MTOW, larger fuel tanks, door to baggage/instrument compartment behind the cockpit, second electrical system with 28V/1 kW generator;
MTOW	930 kg;
Empty weight	610 kg (including basic installations);
Certification	Since 2007: EASA, restricted (Sonderkategorie, eingeschränkt), based on TC of the manufacturer (until 2007 BAZL/AustroControl, under JAR 22 in utility class);
Operation	Daytime VFR (avionics accordingly, with Transponder Type S since 2008)
Crew	2 (pilot and operator), side by side, pilot only operation is possible;
Maximum payloads	50 kg in each pod, 30 kg behind seats, 110 kg on each seat, 75 kg of fuel (total may not exceed 320 kg);
Scientific payload	100 kg for maximum endurance with operator until about 200 kg with less endurance and short endurance;
Fuel	70 kg (a bit less than the 110 litres which are specified in the manual);
Endurance	5 hrs at 170 km/h (more if slower, less if faster, or with frequent changes of altitude, typical research flight is 2 to 4.5 hrs);

Maximum distance without refueling: 800 km;

Scientific payload	100 to 200 kg, depending on endurance and with or without operator;

Cruising speed (minimum / typical / maximum during measurements): 110 / 170 / 200 km/h (IAS)

Climb rate	3 m/s from GND to about 3000 mMSL
Ceiling	4000 mMSL (more with crew oxigen; due to turbo charged engine, the limit is not the engine, but other safety considerations such as icing, spread between minimum and maximum speed, etc.);

Typical operation altitudes150 mGND to 3000 mMSL, or less with special permission;

Electrical power	primary 28 VDC unregulated (+/- 1 V) 1 kW (operationally tested up to 0.5 kW); 100 Watt 12 VDC regulated; 300 Watt 230 VAC;
Other remarks	lowest noise class (among the most quiet aircraft with also a comfortable sound); very good view to the outside for pilot and operator; integrated 12" colour graphical data display in instrument panel;

List of standard and optional instrumentation see http://www.metair.ch/SYSTEMS.htm

List of publications (scientific work done until now) see http://www.metair.ch/REFS.htm