

H5EA
Revision 1
Avian
2/180

20 February 1998

This data sheet which is a part of Type Certificate No. H5EA prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Engine	Lycoming IO-360-C1A
Fuel	100/130 minimum grade aviation gasoline.
Engine limits	For all operations, 2700 rpm 200(hp) full throttle at Sea level. Oil Pressure 60-90 psig Oil Temperature 245°F Maximum Cylinder Head Temperature 475°F Maximum
Propeller and propeller limits	Hartzell Constant Speed Propeller HC-E2YK-1/L7280+1/2 Diameter: 72 inches
Rotor limits	Jump take-off maximum r.p.m. 359 Minimum in-flight r.p.m. 200 Maximum in-flight r.p.m. 260 Maximum landing approach r.p.m. 290
Airspeed limits	Vne (Never exceed) - 100 m.p.h. (IAS)
C.G. range	(+104.5) to (+106.9)
Empty weight C.G. range	None
Datum	119.1 inches forward of main undercarriage jacking point.
Leveling means	Cabin floor
Maximum weight	2,000 lb.
No. of seats	2. Pilot (+46) to (+49), 1 at (+84)
Maximum baggage	None
Fuel capacity	38.1 gal. (32 Imp. gal.) (+105) (See NOTE 1 for unusable fuel)
Oil capacity	2.02 gal. (1.7 Imp. gal.) (+142).

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Rotor blade and control movements	For rigging information refer to maintenance manual.
Serial Nos. eligible	656 only.
Certification basis	FAR Part 27 dated 1 February 1965; Special Conditions 1 through 14 dated 14 October 1964, and Special Condition 15 dated 9 August 1965; exemption 999 dated 1 July 1969. Type Certificate No. H5EA issued 1 July 1969. Date of Application for Type Certificate 27 April 1968.
Equipment:	The basic required equipment as prescribed in the airworthiness regulations, (see certification basis must be installed in the aircraft for certification. In addition the following items of equipment are required: Canadian D.O.T. Approved Flight Manual Avian Aircraft Limited Report No. AAF-58.

- NOTE 1. The current weight and balance report containing the list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each gyroplane at the time of original certification. The certificated empty weight and corresponding C.G. must include unusable fuel of 5.7 lb. at (+105)
- NOTE 2. The following placards must be placed in clear view of the pilot:
- (a) "THIS AIRCRAFT MUST BE OPERATED AS A NORMAL CATEGORY GYROPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS."
 - (b) "NO ACROBATIC MANEUVERS APPROVED."
 - (c) "COLLECTIVE SHALL BE IN "CRUISE DETENT" POSITION EXCEPT DURING TAKE-OFF AND LANDING."
 - (d) "MINIMUM SOLO PILOT WEIGHT WITHOUT BALLAST - 125 LB."
 - (e) "AVOID ABRUPT FLIGHT MANEUVERS ABOVE 70 M.P.H. IAS."
 - (f) "NO SMOKING."
 - (g) "FUEL GAUGE READS 'F' AT 26 GAL. IMP. (31 GAL. US)."
- NOTE 3. Information essential to the proper maintenance of the gyroplane including retirement lives of critical components are contained in the manufacturers maintenance manual provided with each gyroplane. The retirement lives are contained in the Canadian D.O.T. Approved Maintenance Inspection Schedule, Avian Report No. AAF-57.
- NOTE 4. Effective February 20, 1998 design responsibility for model Avian 2/180 gyroplane is transferred from Avian Aircraft Limited, Georgetown, Ontario, Canada and Department of Transport (DOT) (Transport Canada) to Pegasus Rotorcraft Limited, Santa Clara, California, USA and FAA.

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