



Aircraft Inspection

Mandatory

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- Subject:** Electric Self Sustainer Maintenance
- Applicability:** Self Sustainer Sailplanes fitted with Electric engine propulsion
- Accomplishment:** At annual inspection
- Reason:** Defining maintenance requirements for continued airworthiness
Note: these requirements form part of the BGA GMS Maintenance Programme and will be incorporated at the next revision.
- Instructions:** These maintenance instructions are additional to and must be read in conjunction with Type Certificate Holders maintenance recommendations. Refer to engine/propeller/airframe manufacturer for limits, maintenance, repair and overhaul information.
Note: Maintenance certification can only be made by a BGA inspector with Electric Powerplant (EP) Authorisation.
- Prior to commencing maintenance, interrogate on board log and fault recording (if fitted) to establish pre existing faults. Refer to manufacturer for rectification instructions.
- CAUTION: Prior to commencement of work ensure the powerplant is safe, electrical supply isolated and observe caution regarding strong magnetic fields as recommended by type certificate holder.**
- CAUTION: Propeller bladed will extend under gravity in certain fuselage attitudes. If holding tape is used ensure it is of contrasting colour and removed before testing and before flight.**
- Task 1 – Propeller
Clean propeller, carry out pre-flight inspection. Check propeller bladed for damage, cracks and delamination. Check surface protection lacquer for condition.

Issued by - The British Gliding Association Ltd, 8 Merus Court, Meridian Business Park, Leicester. LE19 1RJ.

Note: Mandatory inspections must be recorded in the aircraft log book, unless specified, and certified by an appropriately rated BGA inspector. Optional inspections should be entered into the D.I. book or log book as appropriate. Optional inspections may be certified by a BGA Pilot. Alternative methods of compliance will be considered providing an equal level of safety is accomplished. Contact BGA for authorisation.

Check torque the propeller mounting bolts.
Check track of propeller blade tips.
Observe Propeller TBO.
Lubricate propeller blade attachments.

Task 2 – Motor

Inspect the motor assembly for signs of damage, overheating or deterioration. Check all mounting and electrical connections, cables, grommets for security, overheating and damage. Check for foreign objects and debris in the motor.

Observe motor TBO and replacement of motor bearings.

Task 3 – Controller and main contactor

Check for security, signs of overheating and damage. Check all electrical connections. Check main inverter.

Check motor controller display and function.

Check operation of canopy open inhibit switch.

Task 4 – Propeller brake

Check operation of propeller brake

Task 5 – Motor mounting frame

Check motor mounting frame for security, damage and deterioration.

Task 6 – Gap between spinner and fuselage

Check gap between spinner and fuselage in accordance with LAK-17A EFS Maintenance manual.

Task 7 – Motor accessories and cooling

Check all motor accessories for security, damage and deterioration. Check pot ventilator for operation and signs of damage. Clean if necessary.

Task 8 – Bolted connections

Check all bolted connections observing any specific torque loadings and adjustments

Task 9 – Motor mounting

Check motor mounting for security, damage and deterioration.

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Task 10 – Power cables

Check all control and power cables for signs of overheating, chafing, security, damage and deterioration. Pay special attention to cables running through rudder pedal support.

Task 11 – Battery

Check batteries for damage, leakage, electrolyte level, corrosion on terminals. Check battery bay and cover for signs of acid contamination, security, damage and deterioration of mounting and securing clamps. Check operation of drains.

Observe battery recommended life.

Task 12 – Ground run

Carry out function test and ground run observing all safety precautions.

Records

Record all work on worksheets and aircraft log book in accordance with M.A.401 (c) Use BGA 285 to record routine maintenance and inspections.

Approved By

Jim Hammerton, Chief Technical Officer

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