Annex A

MINIMUM REQUIREMENTS FOR AN ANNUAL INSPECTION FOR AMATEUR-BUILT AIRCRAFT OTHER THAN BALLOONS MANDATORY 25-HOUR PERIODIC INSPECTION FOR MICROLIGHT AEROPLANES OPERATED IN TERMS OF PART 96

(Inspect as applicable)

1. AIRFRAME AND INSTALLED EQUIPMENT

1.1 Fuselage or Hull

1. Carefully inspect the fuselage or hull for general condition.
2. Check the fabric and dope, or other skin covering, for condition and security.
3. Check installed systems and components for proper installation, security, defects and satisfactory functioning.

1.2 Cabin or Cockpit

1. Inspect the cabin or cockpit for cleanliness and loose or displaced articles that might interfere with the operation of controls.
2. Check seats, seat rails, seat locking mechanisms, safety harness, flooring and tie-down fittings for security and condition.
3. Check windscreens and windows for security, condition and, where applicable, for satisfactory operation.
4. Check emergency exits for proper installation, condition, legibility of operating instructions and other markings and for satisfactory functioning.
5. Check flight, engine and propeller controls for correct installation, security of connections, condition, proper operation and, where applicable, legibility of markings.
6. Check all systems and their controls in the cockpit or cabin for proper installation, security, satisfactory operation and legibility of markings.
7. Ensure that all required placards and registration letters are correctly installed and positioned, are legible and in good condition.

1.3 Instruments and Instrument Systems

1. Check instruments for proper installation, security, obvious defects and legibility and correctness of markings.
2. Check instrument operating systems for proper installation, security and condition. Pay particular attention to pitot-static systems for freedom from obstructions and absence from leakage.
3. Check that filter elements of vacuum operated instruments are cleaned or replaced in accordance with the manufacturer's recommendations.
4. Check altimeters and airspeed indicators for accuracy.

1.4 Landing Gear

1. Check the landing gear for general condition and security of attachment of all components.
2. Inspect the shock absorbing devices for correct fluid levels and pressures.
3. Check linkages, trusses and other members for condition and security of attachments.
4. Check retracting and locking mechanisms for condition and satisfactory operation.
5. Check hydraulic lines and retraction jacks for condition and any leakage of fluid.
6. Check electrical items for condition, chafing of cables and satisfactory operation of motors, switches and indicators.
7. Check mechanical indicators for conditions and satisfactory operation.
8. Check steering mechanisms for condition and bearings for condition, lubrication and correct adjustment.
10. Check tyres for condition and creep. Check tyre pressures.
11. Check brakes for condition, correct adjustment and operation.
12. Check floats, skis or skids for additional security.

1.5 Wings and Centre Section

1. Check the entire assembly, including any external bracing, for general conditions.
2. Check fabric and dope, or other skin covering, for condition and security.
3. Check wing attachments and bracings for security, condition, correct assembly and, where applicable, correct torqueing of attaching bolts.
4. Check movable surfaces for condition, security, proper attachment, correct travel and operation and security of all control connections.
5. Check installed systems and components for proper installation, security, condition and satisfactory functioning.

1.6 Empennage

1. Check the entire assembly, including external bracing, for general condition.
2. Check fabric and dope, or other skin covering, for condition and security.
3. Check attachment of all components for security and correct assembly.
4. Check movable surfaces for condition, security, proper attachment, correct travel and operation and security of all control connections.
5. Check installed systems and components for proper installation, security, condition and satisfactory functioning.

1.7 Electrical and Radio Equipment Installations

1. Inspect batteries for condition, corrosion and venting and for correct installation, and check specific gravity and level of electrolyte.

2. Check electrical installations and components for condition, security of mounting, correct installation and functioning.
3. Check electrical wiring and conduits for condition and security of mounting.
4. Check bonding and shielding for correct installation, security and condition.
5. Check radio equipment for correct functioning and for correct installation and security of mountings.
6. Check radio antenna systems for condition, correct installation and security, and trailing aerials for satisfactory operation.
7. Check for unacceptable interference from electrical and ignition systems on applicable radio equipment.

1.8 Fuel Systems

1. Check fuel tanks and fuel systems for the presence of water or other foreign matter, condition, security, correct installation, freedom from leaks and satisfactory functioning of components.
2. Inspect ON, OFF, BOTH fuel selector (as applicable) for condition and proper operation.

1.9 Rotorcraft (Helicopters and Gyroplanes and Gyrogliders)

In addition to applicable items under paragraphs 1.1 to 1.8 above, the following items on rotorcraft shall be checked for condition, security, correct installation and, as applicable, alignment:

(a) drive shaft assemblies or similar systems;
(b) main rotor transmission gear box;
(c) rotary wings (rotors) and centre section or equivalent area;
(d) tail rotor assembly where applicable; and
(e) tracking of main rotors.

1.10 Miscellaneous

Check any systems, assemblies and items not specifically mentioned under paragraphs 1.1 to 1.9 above, for connection, correct installation, security and satisfactory operation.

2. POWER PLANTS AND INSTRUMENTS RELATING THERETO

2.1 Engine and Engine Installations

1. Inspect each entire engine for evidence of fuel, oil and other fluid leaks and for the sources of any such leaks.
2. Check all studs, nuts and other fasteners for security, condition and correct torqueing.

3. Check the internal conditions of engines by means of cylinder compression or blow-by checks, and oil filters and sump drain plugs for evidence of metal particles or other foreign matters.
4. Check engine shock mounts for condition, security and correct installation.
5. Check engine controls for correct installation, operation, condition and security.
6. Check fluid-carrying lines for security, correct installation and condition.
7. Check systems of security and condition. Pay particular attention to exhaust manifold assemblies, heater muffs and heat exchangers.
8. Check engine-driven accessories for condition and security of mountings.
9. Check carburettor air intake filters for cleanliness, condition, security and correct installation.
10. Check engine mountings for condition and security of attachment to the main structure.
11. Check cooling baffles and seals for condition, security and correct installation.
12. Check engine cowling for condition, security and correct installation.
13. Check cooling gills or other cooling devices for condition, security, correct installation and operation.
14. Check ignition systems for condition and correct timing of magnetos. Pay particular attention to the condition and assembly at terminal points of ignition switch wiring and ensure that ignition switch(es) function satisfactorily.
15. Where practicable, ensure that fuel flow at the carburettor or equivalent component from all tanks meets at least the minimum prescribed flow requirements.

2.2 Propellers

1. Check metal and composite propeller blades for nicks and damage, and metal hubs and counterweights, where applicable, for condition.
2. Check wooden propellers for condition. Check that propeller hub bolts are correctly torqued and leading edge caps are properly secured.
3. Check security of attachment of propeller to the engine.
4. Check propeller, where applicable, for oil leaks and for satisfactory operation.
5. Check propeller control systems for condition and satisfactory operation.
6. Check that propeller track is within specified limits.
7. Check any anti-icing systems for condition, security and satisfactory operation.

2.3 Powerplant Instruments and Instrument Systems

1. Check instruments for proper installation, security, obvious defects and legibility and correctness of markings.
2. Where practicable, check powerplant instrument for satisfactory functioning before and during engine run.

2.4 Miscellaneous

Check any other power plant system, assemblies and items not specifically mentioned under paragraphs 2.1 to 2.3 above, for condition, correct installation, security and satisfactory operation.

2.5 Engine Operation

On completion of an annual inspection each engine shall be run in accordance with the manufacturer's recommendations to determine the following:

(1) Piston Engines

(a) power output (static and idle rpm);
(b) engine rpm-drop on each magneto;
(c) fuel and oil pressures;
(d) cylinder and oil temperatures; and
(e) satisfactory operation of any engine-driven accessories or other items not specifically mentioned above.

(2) Gas Turbine Engines

(a) satisfactory operation of the engine and engine-driven accessories;
(b) engine pressure ration (EPR), if applicable;
(c) exhaust gas temperature (EGT), if applicable;
(d) maximum power; and
(e) other parameters, as applicable.