Section 4

**Maintenance Schedule - Annual and Star Annual (Airworthiness Certificate renewal) Inspection**

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| Task  Item | Description | Inspection detail | Operation |
| **Tasks 1 to 62 applicable to all aircraft, also see Tasks 90 to 100 (for Self Sustaining Sailplanes also include tasks 63 to 89)** | | | |
| **All applicable tasks to be certified on BGA GMP Report (BGA 267)** | | | |
| 0 | **All Tasks General** | **Inspect for security, damage, wear, integrity, drain/vent holes clear, signs of overheating, leaks, chafing, cleanliness and condition as appropriate to the particular task. Whilst checking GRP Composite structures check for signs of impact or pressure damage that may indicate underlying damage.**  **The manufacturers maintenance manual must be used for specific maintenance instructions.**  **The aircraft must be clean prior to starting inspections.** | - |
| 1 | **Fuselage Paint/Gelcoat** | Inspect external surface and fairings, gel coat, fabric, and paintwork. Check that registrations marks are correctly applied.  Ensure compliance with Generic Requirement 8 Fabric Inspection | Insp/chk |
| 2 | **Fuselage structure** | Check frames, formers, tubular structure, skin and attachments. Inspect for signs if corrosion on tubular framework.  Wooden structure inspection ref BGA Inspection 047/02/2006 (5 year repeat) | Insp/chk |
| 3 | **Nose Fairing** | Inspect for evidence of impact with ground.  Inspect nose tow release unit and aperture. | Insp/chk |
| 4 | **Rudder** | Check rudder assembly, hinges, attachments, balance weights. | Insp/chk |
| 5 | **Pot Pitot/Ventilator** | Check alignment of probe, check operation of ventilator | Insp/chk  Op/chk |
| 6 | **Centre section fairing** | Inspect for security, damage and condition. | Insp/chk |
| 7 | **Wing attachments** | Inspect the wing structural attachments. Check for damage, wear and security. Check for rigging damage. Check condition of wing attachment pins | Insp/chk |
| 8 | **Canopy, locks, jettison** | Inspect canopy and frame and transparencies for cracks unacceptable distortion and discoloration. Check operation of all locks and catches.  Carry out an operational test of the canopy jettison system from all positions.  Canopy jam during jettison inspection ref BGA Inspection 021/10/2001  Check canopy gas strut inspection ref BGA Inspection 031/05/2002 | Insp/chk  Op/chk |
| 9 | **Seat / cockpit floor** | Inspect seat (s). Check that all loose cushions are correctly installed and as appropriate, energy absorbing foam cushions are fitted correctly. Ensure that all seat adjusters fit and lock correctly.  Seat trim inspection ref BGA Inspection 019/10/2001 | Insp/chk  Op/chk |
| 10 | **Cleanness / loose article check** | Check under cockpit floor/ seat pan and in rear fuselage for debris and foreign items | Insp/chk |
| 11 | **Front Skid/Nose Wheel & mounts** | Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre and wheel box. Check tyre pressure | Insp/chk  Service |
| 12 | **Mainwheel & Brake assembly** | Check for integrity of hydraulic seals and leaks in pipe work. Check life of hydraulic hoses and components if specified by manufacturer. Remove brake drums, Check brake lining wear. Check disk/drum wear. Refit drum. Check brake adjustment.  **CAUTION: BRAKE DUST MAY CONTAIN ASBESTOS.**  Check operation of brake. Check level of brake fluid and replenish if necessary.  **CAUTION: CHECK TYPE OF BRAKE FLUID USED AND OBSERVE SAFETY PRECAUTIONS**  If DOT 3 or DOT 4 automotive brake fluid is used; change at regular intervals as it absorbs water | Insp/chk  Service |
| 13 | **Undercarriage suspension** | Check springs, bungees, shock absorbers, and attachments. Check for signs of damage.  Service strut if applicable. | Insp/chk |
| 14 | **Undercarriage retraction system** | Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over centre/locking device. Perform retraction test. | Insp/chk  Op/chk |
| 15 | **Tail skid / wheel** | Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre and wheel box. Check bond of bonded skids. Check tyre pressure | Insp/chk  Service |
| 16 | **Release hooks** | Inspect nose and C of G release hooks and controls  Check operational life.  Carry out operational test. If more that one release hook or control is fitted check operation of all release hooks from all positions. | Insp/chk |
| 17 | **Harnesses** | Inspect all harnesses for condition and wear of all fastenings, webbing and fittings. Check operation of release and adjustments. See BGA AMP manual Leaflet 4-8.  On gliders used for private flight only – seat harnesses may be lifed on condition provided there is no Airworthiness Directive mandating replacement. | Insp/chk  Op/chk |
| 18 | **Rudder pedal assemblies** | Inspect rudder pedal assemblies and adjusters. | Insp/chk |
| 19 | **Rudder control circuit & stops** | Inspect rudder control rods/cables. Check that control stops are contacting and secure. Pay particular attention to wear and security of liners and cables in “S” tubes | Insp/chk |
| 20 | **Elevator control circuit & stops** | Inspect elevator control rods/cables. Check that control stops are contacting and secure.  Inspect self connecting control devices. | Insp/chk |
| 21 | **Aileron control circuit & stops** | Inspect aileron control rods/cables Check that control stops are contacting and secure.  Inspect self connecting control devices. | Insp/chk |
| 22 | **Trimmer control circuit** | Inspect trimmer control rods/cables. Check friction/locking device. | Insp/chk |
| 23 | **Air brake control circuit** | Inspect air brake control rods/cables. Check friction/locking device (if fitted) Inspect self connecting control devices. | Insp/chk |
| 24 | **Wheel brake control circuit** | Inspect wheel brake control rods/cables. If combined with air brake ensure correct rigging relationship.  Check parking brake operation (if fitted) | Insp/chk |
| 25 | **Instrument panel assemblies** | Inspect instrument panel and all instruments/equipment. Check that instrument readings are consistent with ambient conditions. Check marking of all switches, circuit breakers and fuses.  Check operation of all installed equipment as possible i.a.w. Manufacturers instructions. | Insp/chk  Op/chk |
| 26 | **Pitot/static system** | Inspect pitot probes, static ports all tubing (as accessible) for security, damage, cleanliness, and condition. Drain any water from condensate drains. | Insp/chk  Service |
| 27 | **ASI Calibration** | Carry out calibration of the airspeed indicator (in situ permissible) i.a.w. manufacturers instructions (Use manufacturers limits. If Not avail. Max error 2 knots) | Op/chk |
| 28 | **Altimeter datum** | Check barometric sub scale. (max. error 2 Mb) | Insp/chk |
| 29 | **Electrical installation/ fuses/trips** | Check all electrical wiring for condition. Check for signs of overheating and poor connections. Check fuses/trips for condition and correct rating. | Insp/chk |
| 30 | **Battery** | Check battery mounting for security and operation of clamp. Check for evidence of electrolyte spillage and corrosion. Check that battery has the correct main fuse fitted.  It is recommended to carry out battery capacity test on gliders equipped with radio, used for cross-country, airways or competition flying. Battery capacity test is required if a transponder is fitted. See BGA AMP manual leaflet 4-9. | Insp/chk  Service |
| 31 | **Oxygen systems** | Inspect oxygen system. Check bottle hydrostatic test date expiry i.a.w. Manufacturers recommendations. Ensure that bottle is not completely empty (200psi min) refill with aviators oxygen only. Clean masks and regulators with approved cleaning wipes.  Ensure that oxygen installation is recorded on weight and C of G schedule.  **CAUTION: OBSERVE ALL SAFETY PRECAUTIONS** | Insp/chk  Service |
| 32 | **Radio installations and placards, Transponders.** | Check radio installation, microphones, speakers and intercom if fitted. Check that call sign placard is installed.  Carry out radio ground function test. Record type fitted.  If installed, Carry out transponder maintenance and inspection i.a.w. BGA inspection 052/08/2011 | Insp/chk |
| 33 | **Radio frequency check** | 48-month frequency tolerance check. (Not required for modern 720/760 or later channel transceivers) | Insp/chk |
| 34 | **Removable ballast** | Check removable ballast mountings and securing devices for condition. Check that ballast weights are painted a conspicuous colour. Check that prevision is made for the ballast on the loading placard. | Insp/chk |
| 35 | **Colour coding of controls** | Ensure that controls are colour coded and in good condition, as follows;  Tow release: Yellow  Air Brakes: Blue  Trimmer: Green  Canopy normal operation: White  Canopy jettison: Red  Other controls: clearly marked but not using any of the above colours | Insp/chk |
| 36 | **Equipment stowed in centre section** | Check for security and condition. Check validity of any safety equipment. Check manufacturers and NAA (if required) data plates | Insp/chk |
| 37 | **Wing struts/wires** | Inspect struts for damage and internal corrosion. Re-inhibit struts internally every 3 years or in accordance with manufacturers instructions. | Insp/chk |
| 38 | **Drag chutes & controls** | Inspect chute, packing and release mechanism. Check repackaging date. | Insp/chk |
| 39 | **Water ballast system** | Check water ballast system, wing and tail tanks as fitted. Check filling points, level indicators, vents, dump and frost drains for operation and leakage.  If loose bladders are used check for leakage and expiry date as applicable. | Insp/chk |
| 40 | **Tailplane and elevator** | With tailplane de-rigged check tailplane and attachments, self connecting and manual control connections,  Check condition and fitment of sealing tape ref BGA Inspection 009/10/2000  Control tape and Mylar seal inspection ref BGA Inspection 011/12/2000  Wooden structure inspection ref BGA Inspection 047/02/2006 (5 year repeat) | Insp/chk |
| 41 | **Left wing** | Check mainplane structure externally and internally as far as possible. Check gel coat or fabric covering. Check registration marks are correctly applied  Ensure compliance with Generic Requirement 8, Fabric Inspection  Wooden structure inspection ref BGA Inspection 047/02/2006 (5 year repeat) | Insp/chk |
| 42 | **Left wing controls** | Inspect aileron and Flaperon assemblies, hinges, control connections, springs/bungees, tapes and seals. Ensure that seals do not impair full range of movement.  Control tape and Mylar seal inspection ref BGA Inspection 011/12/2000 | Insp/chk |
| 43 | **Left air brake/spoiler** | Inspect air brake/spoiler panel(s) operating rods, closure springs, and friction devices as fitted. | Insp/chk |
| 44 | **Left Flap** | Check flap system and control. Inspect self connecting control devices. | Insp/chk |
| 45 | **Right wing** | Check mainplane structure externally and internally as far as possible. Check gel coat or fabric covering. Check registration marks are correctly applied  Ensure compliance with Generic Requirement 8, Fabric Inspection  Wooden structure inspection ref BGA Inspection 047/02/2006 (5 year repeat) | Insp/chk |
| 46 | **Right wing controls** | Inspect aileron and Flaperon assemblies, hinges, control connections, springs/bungees, tapes and seals. Ensure that seals do not impair full range of movement.  Control tape and Mylar seal inspection ref BGA Inspection 011/12/2000 | Insp/chk |
| 47 | **Right air brake/spoiler** | Inspect air brake/spoiler panel(s) operating rods, closure springs, and friction devices as fitted. | Insp/chk |
| 48 | **Right Flap** | Check flap system and control. Inspect self connecting control devices. | Insp/chk |
| 49 | **Bonding/vents/drains** | Check all bonding leads & straps. Check all vents and drains are clear from debris. | Insp/chk |
| 50 | **Lubrication** | Lubricate aircraft in accordance with manufacturers requirements | Lub |
| 51 | **Markings** | Check side and under-wing markings are correct. If applicable, an exemption for alternate display is approved. Ident plate for CAA registered aircraft present. BGA Number on fuselage for BGA registered aircraft. | Insp/chk |
| 52 | **Mandatory checks** | Check for compliance of all mandatory modifications, airworthiness directives and inspections applicable to the Airframe, accessories & equipment. Record compliance in the logbook.  State of design Type certificate and STC holder AD list, BGA Compendium, BGA Technical News Sheet, BGA Mandatory inspections, Manufacturers mandatory check list (if available). | Check  Record |
| 53 | **Manufacturers recommendations and life inspections** | Review manufacturers maintenance schedules and instructions for continued airworthiness for the airframe to establish if any additional work, servicing or preservation action is required (enter in tasks 90 to 100)  Check airframe life inspection status (3000 hour inspections etc) | Insp/chk |
| 54 | **Control deflections & free play** | Check and record range of movements and cable tensions (if specified) check free play. | Insp/chk |
| 55 | **Duplicate inspections** | Record each item requiring a duplicate inspection on an additional worksheet and complete prior to releasing aircraft back to service. | Insp/chk |
| 56 | **Weighing** | Review weighing record to establish accuracy against installed equipment  Check date of last weighing (Maximum period for re-weigh is 8 years or after painting)  See Generic Requirement 10 and BGA AMP manual Leaflets 4-1 & 4-2. | Insp/chk |
| 57 | **Speed/weight/**  **manoeuvre placard** | Check placard is correct and legible and accurately reflects the status of the aircraft | Insp/chk |
| 58 | **Hours** | Hours at this inspection | Record |
| 59 | **Launches** | Launches at this inspection | Record |
| 60 | **Modifications** | Review Log Book and verify that any modifications incorporated since last Airworthiness Certificate or ARC renewal have been approved and correctly embodied and recorded | Check |
| 61 | **Log book** | Complete log book entry. Ensure that all flying records are entered and up to date. | Record |
| 62 | **Flight manual** | Verify that the Aircraft Flight Manual or Operating Handbook is at the latest revision. | Check |
| **Tasks 63 to 89 are only applicable to Self Sustaining Sailplanes** | | | |
| 63 | **Engine pylons & mountings** | Inspect engine and pylon installation. Check engine compartment and fire sealing.  Pressure test cabin heater exhaust heat exchanger (if applicable) | Insp/chk |
| 64 | **Gas strut** | Check gas strut. | Insp/chk |
| 65 | **Pylon/engine stops** | Check limit stops on retractable pylons. Check restraint cables | Insp/chk |
| 66 | **Electric actuator** | Inspect electric actuator, motor, spindle drive and mountings | Insp/chk |
| 67 | **Electrical wiring** | Inspect all electrical wiring. Pay special attention to wiring that is subject to bending during extension and retraction of engine/pylon. | Insp/chk |
| 68 | **Limit switches** | Check operation of all limit switches & strike plates. Ensure not damaged by impact. | Insp/chk |
| 69 | **Fuel tank** | Check fuel tank mountings and tank integrity. Check fuel quantity indication system if fitted. | Insp/chk |
| 70 | **Fuel pipes & vents** | Check all fuel pipes especially those subject to bending during extension and retraction of engine/pylon. Check vents clear. Ensure overboard drains do not drain into engine compartment. Check self sealing couplings. | Insp/chk |
| 71 | **Fuel cock or SOV** | Check operation of fuel cock or shut off valve & indications | Op/chk |
| 72 | **Fuel pumps and filters** | Clean or replace filters as recommended by manufacturer  Check operation of fuel pumps for engine supply or tank replenishment  Check fuel pump controls and indications | Insp/chk |
| 73 | **Decompression valve** | Inspect decompression valve and operating control | Insp/chk |
| 74 | **Spark plugs** | Carry out spark plug service. It is recommended to replace spark plugs at annual intervals | Service |
| 75 | **Harnesses & Magneto** | Inspect low tension and high-tension wiring, connectors, spark plug caps. Check magneto to engine timing. Check impulse coupling operation. | Insp/chk |
| 76 | **Propeller** | Inspect propeller, hub, folding mechanism, brake, pitch change mechanism, stow sensors.  Check overhaul period. Manufacturers TBO must be observed if specified. | Insp/chk |
| 77 | **Doors** | Check engine compartment doors, operating cables, rods and cams. | Insp/chk |
| 78 | **Safety springs** | Check all safety and counterbalance springs. | Insp/chk |
| 79 | **Extension and retraction** | Check extension and retraction operation times are within limits specified by manufacturer. Check light indications and interlocks for correct operation | Op/chk |
| 80 | **Exhaust** | Inspect exhaust system, silencer, shock mounts and links.  See CAA CAP 562 CAAIP Leaflet B-190 for further guidance | Insp/chk |
| 81 | **Engine installation** | Inspect engine and all accessories. Carry out compression test and record results. | Insp/chk |
| 82 | **Lubrication** | Change engine oil and filter. Replenish oil and additive tanks. | Service |
| 83 | **Engine instruments** | Inspect all engine instruments and controls. Check control unit, mounts, bonding and connections. Carry out internal self test if fitted. | Insp/chk |
| 84 | **Engine battery** | (if separate to airframe battery)  Inspect battery and mountings. If main fuse is fitted check rating and condition. | Insp/chk |
| 85 | **Engine battery** | Carry out capacity test. See BGA AMP manual leaflet 4-9. | Insp/chk |
| 86 | **Placards** | Check all placards in accordance with flight manual and are legible. | Insp/chk |
| 87 | **Oil and fuel leaks** | With the engine fully serviced check the fuel and oil system for leaks | Insp/chk |
| 88 | **Mandatory checks** | Check for compliance of all mandatory modifications, airworthiness directives and inspections applicable to the engine, propeller, accessories & equipment. Record compliance in the logbook.  State of design Type certificate and STC holder AD list, BGA Compendium, BGA Technical News Sheet, BGA Mandatory inspections, Manufacturers mandatory check list (if available). | Insp/chk |
| 89 | **Manufacturers recommendations** | Review manufacturers maintenance schedules and instructions for continued airworthiness for the engine/propeller to establish if any additional work is required (enter in tasks 90 to 100)  Where a recommended engine TBO is specified, On gliders used for private flight only – Engines may be lifed “on condition” provided there is no Airworthiness Directive mandating replacement or overhaul. | Insp/chk |

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| **Tasks 90 to 100, Additional maintenance tasks not included in schedule (Complete as required. If necessary use additional sheets)**  **Add BGA inspections, repetitive Airworthiness Directives, Manufacturers Instructions for Continued Airworthiness as applicable to the particular aircraft. See AMP 2-14 for guidance on customisation.** | | | |
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Notes and useful information:

(Use this page to note servicing information, contact addresses for spares etc. Any data should be reviewed periodically to ensure accuracy)