

Section 4

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

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 GMS 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 airworthiness notice No. 20 Fabric Inspection	Insp/chk
2	Fuselage structure	Check frames, formers, tubular structure, skin and attachments. Inspect for signs if corrosion on tubular framework.	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 form all positions.	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.	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	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 than 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. 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	Check radio installation, microphones, speakers and intercom if fitted. Check that call sign placard is installed. Carry out ground function test. Record type fitted.	Insp/chk
33	Radio frequency check	48-month frequency tolerance check.	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 provision 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,	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 airworthiness notice No. 20 Fabric Inspection	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.	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 airworthiness notice No. 20 Fabric Inspection	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.	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 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 AWN 38 and BGA AMP manual Leaflets 4-1 & 4-2. If reweigh or amendment - forward copy of report to BGA	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 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. Check compliance with Airworthiness Notice 40 carbonmonoxide contamination	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	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.	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 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
Tasks 90 to 100, Additional maintenance tasks not included in schedule (Complete as required. If necessary use additional sheets)			
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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)