

Special Inspections All Types

General information for guidance of inspectors collated from Airworthiness Directives applicable to all types, experience of incidents, published articles and general information.

Note: Deleted entries in this section have been entered into relevant sections within the compendium. (Aircraft manufacturers, Engine, Propeller or Equipment)

1. **AIRBRAKES** after repairs & repaints check opening & locking with wings bent. Insufficient clearance around paddle ends can prevent them being opened in flight. TNS 06/96
2. **BALLAST WEIGHTS (& BAGS etc)** must be secured. For preference use bolted in ballast weights. Record if ballast weights are fitted, especially if out of sight. TNS 12/00
3. **BGA FORMS 267** – See item 50
4. **BUNGEE HOOKS** should be removed to prevent hang-ups on cable parachutes.
5. **CABLES** - is the swaging satisfactory? Cables must be proof load checked or batch sample checked if made in situ to assure strength. Only use compatible cable, swage and tooling DO NOT MIX & MATCH

Hemp cored cables must be replaced. Ref TNS 08/93.

Stainless steel for control cables not recommended in applications with high chafing or tight turns on small pulleys. It has very poor fatigue properties. TNS 06/91, Piper SB 1048 Lubrication of SS control cables.

Rudder pedal “S” tubes, check for wear by slipping cables. Worn anti wear liners must be replaced. Check for wear into tube if liners are damaged. TNS 12/03

Assess the need for end-to-end inspections at annual check TNS 08/00

6. **CONTROL SURFACE TAPE** must be renewed regularly. Loose tape can cause major control problems. TNS 12/97 & 06/99. BGA inspection 011/12/2000 issue 1 detailing annual inspections on control tape and seals. TNS 12/00
7. **CONTROL RODS** - can be damaged by root ribs during trailer transport. Secure them. Damaged whilst rigging TNS 10/03
8. **CONTROLS** L’Hotellier connectors MANDATORY inspections LBA AD 1993-001/3 and AD 1994-001/2 applicable to all types. Annual wear check. Must be replaced before flight if worn to limits. TNS 02/04
9. **GROUND LOOPING INCIDENTS**- inspections in depth are required to establish the integrity of both structures and control systems. Ref BGA GRP Inspection Guidelines in AMP Manual.
10. **INSTRUMENTATION TUBING** - PVC loosens with age & leaks, glue it or use neoprene.
11. **INSTRUMENT PANEL** sharp metal edges are very dangerous. Leg protection must be fitted. Glass-fibre panels are much safer. “ASW” glass panels are designed to break up during an accident. Instrument installations (compasses) impeding canopy jettison BGA 021/10/2001 iss1 recommended inspection. Inspection guidelines and replacement guidelines issued by Technical Committee. Replace metal panels with wood/composite or composite where possible. TNS 02/05

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12. **LIGHTNING STRIKE** inspections of GRP gliders. TNS 12/88 & wooden glider control cables TNS 04/87. The need for bonding is emphasised TNS 08/00.
13. **LIMITATIONS** - must be permanently and legibly placarded, (including engine limitations).
14. **OTTFUR** rings distort and jam in Tost hooks. Use only Tost rings for all launching. TNS 06/97 Ottfur hooks new & product support - CAIR Aviation Ltd tel. 01293 888185, fax 01293 881764. See TNS 12/97 & 08/02 for maintenance data.
15. **SEATBACKS** “slot in” types eg PW5, Vega & Jantar must be secured such that they can't come loose under negative “G”. TNS 06/89 ME7 and AC4 included in types to check for security
16. **SEAT TRIM** Seat trim obstructing exit from glider Recommended inspection BGA 019/06/2001 iss1.
17. **STIFF NUTS** may be used to replace split pin locked castellated nuts in any position where the nut is done up tightly. For example where a nut & bolt clamp up a bearing or a bush. Stiff nuts must be in safety – at least 1 full thread protruding TNS 10/03 Check residual torque of stiff nuts if re-using. Stiff nuts cannot replace castellated nuts where there is any relative movement in the assembly or where the MM or AD specifies castellated nut and split pin. TNS 5-2006
18. **TRIM TABS** - dangers of unsecured drive systems. TNS 12/88
19. **VENTS & DRAINS** - do they work? (Have you checked?) All components must have vents & drains. More reports of missing drain holes causing serious corrosion and wood rot TNS 02/04
20. **WEIGHT AND BALANCE** all types are normally to be re-weighed every EIGHT years. Inaccuracies and incorrect placarding can be fatal. TNS 02/87. Some notes on procedures are given in TNS 06/99
21. **WHEEL BRAKES** Technical Committee clarification on serviceability.
“When any glider has a wheel brake incorporated in the type design or by modification, then that brake system must be fitted and serviceable unless a front skid is also fitted and is of a type that can be lowered onto the ground to provide another means of deceleration and placarded accordingly”. TNS 1-2006
22. **WOOD AND FABRIC STRUCTURES** - over-tautening of fabric. TNS 10/88 always follow fabric manufacturers' instructions. Attach fabric correctly; use adhesive not dope for synthetics. TNS 08/98
23. **AIRFRAME LIFE INSPECTIONS** all glass types of German origin, and others must be inspected at 3 000 hours and every subsequent 1 000 hours as per manufacturers special instructions. Additional inspections on some types at 6 000 hours – see aircraft section for specific instructions.
24. **WINCH GUILLOTINES** all winches must be equipped by end of 2000. And checked on at least an annual basis.
25. **NYLON PEEL PLY** Use approved materials and follow manufacturers instructions TNS 08/00, 09/00, 12/00.
26. **DUPLICATE INSPECTIONS** reminder that duplicate inspections are required if a control system or critical point is disturbed TNS 08/00.

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27. **SELF SUSTAINER SAILPLANES** See item 50
28. **TORQUE LOADING** reminder to follow manufacturers specified torque loading TNS 12/00
29. **HEAVY LANDINGS** recommend “weight off” inspections following heavy landings TNS 12/00 Check for structural deformation.
30. **BGA WEIGHT INCREASE CONSSSION** 3% of AUW or 5% of NLP subject to conditions and limitations on pre 28/9/03 BGA gliders 02/01
31. **DYNAFOAM** Guidelines on thickness of foam to use and to avoid injury TNS 08/02. remove from aircraft if left outside overnight due vermin damage 06/05
32. **FULL AND FREE CHECKS** ensure that controls are un-restricted by seats, trim or any other control unless specifically designed to do so 12/02
33. **HOT WEATHER PROBLEMS.** Use correct sealing and draft proofing materials for sealing canopies. Inappropriate materials may cause canopy to seal itself shut and prevent entry or exit. 08/03
36. **GLUE FAILURES** Reports of glue failures on many types, some possible Casein type glues on older types. Take note of storage conditions if damp can promote failure of glue. Assess need to remove fabric or skin for access to inspect. Also see A/W notice 20.TNS 10/03.
34. **RELOCATION OF AIRCRAFT DURING MAINTENANCE.** Strict rules apply if moving an aircraft (glider, motor glider or tug) to ensure continued airworthiness. Proper hand over, certification of part done maintenance, awareness of outstanding defects or part completed tasks. TNS 10/03
35. **SPLIT PINS** Failure of split pins in control systems reported in Eastern European gliders due to poor metal quality. TNS 02/04
36. **VINTAGE GLIDERS** check deterioration of rubber elastic bungees used in control systems TNS 04/04
37. **RECOVERY OF DAMAGED PARTS** parts damaged in an accident or incident may only be returned to service after overhaul or repair in accordance with approved repair schemes. TNS 10/04
38. **SECONDARY DAMAGE** When inspecting GRP structures be aware of secondary damage that may be very difficult to spot especially if the aircraft is finished in acrylic paint. TNS 10/04
39. **APPLICABILITY OF BGA APPROVED MODIFICATIONS.** BGA mods may not be installed on Gliders issued with a EASA C of A or gliders issued with a BGA C of A after 28/9/03 unless approved by the CAA or EASA.
EASA approved mod for DG1000s rear seat TNS 10/05
40. **GLIDER BATTERY CURRENT LIMITERS** if used a fuse must also be used in the circuit as current limiters are not fail safe TNS 04/05

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41. **MARKING OF CONTROLS** all minor controls must be marked in accordance with CS-22 TNS 04/05
42. **PLACARDS** check for legibility and replace if necessary ENG NEWS 30. only BGA approved or manufacturers placards are mandatory in BGA gliders TNS 1-2007
43. **CAA GLIDER REGISTRATION** please see AMP Leaflet 3-7 for details and guidance on CAA registration of gliders.
44. **POWDER COAT PAINTING** Not approved for use on gliders and powered aircraft TNS 10/05
45. **ALL WOODEN GLIDERS** BGA inspection 047/02/2006 issue 1. Identifying Kaurite glue, mandatory inspection and 5 year repeat. TNS 1-2006
46. **SPINNING GLIDERS WHILST IN BGA EXTENDED WEIGHT CATEGORY** Technical Committee clarification.
“The committee confirmed that provided the aircraft was approved for spinning within normal limitations, but choice of spinning of these sailplanes within the published narrower tolerances of the reduced flight limitations was an operational matter. It should be remembered that whilst operating at an increased weights the reserve factors will be reduced and exceeding limitations will be easier.” TNS 1-2006
47. **REPAIRS TO POST 2003 GLIDERS** all gliders registered after 28/9/03 if requiring repair must be repaired to an approved repair scheme. TNS 1-2006
48. **SELLING GLIDERS OVERSEAS** The BGA is not able to issue an export C of A TNS 1-2006
49. **NEW 267 FORM** to be used for all post 9/2003 gliders and ALL Self Sustaining Sailplanes C of A issue and renewal recommendations. Old forms may be used for pre 9/2003 gliders until supplies used up or new form can be used. All sections must be completed.
50. **LOCKING WIRE** reported use of soft lockwire. On BGA aircraft only Stainless Steel or Inconel Locking wire must be used except for tell tails where fuse wire or equivalent is used. TNS 3-2006, 4-2006
51. **CABLE MANUFACTURE** if making up control cables follow process information and if found not to conform must be scrapped (Also see item 5) TNS 4-2006
52. **RIGGING AND CONTROL CHECKS** It is a BGA mandatory requirement to rig gliders and check and record control deflections as part of each Annual maintenance and C of A check. This cannot be waived.
53. **CANOPY JETTISON** Annual C of A requirement (GMS Task 8) ensure jettison is not restricted by cables or other items. Report all findings to BGA TNS 6-2006
54. **SEAT HARNESES** may be operated on condition TNS 1-2007

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55. **SEAT HARNESES** shoulder straps must be wrapped around correct structural mountings or tubes, wire loops are for location only TNS 4-2008
56. **GLIDER TRANSITION AFTER 28/9/2008** Gliders registered with the BGA before 28/9/2008 may continue to be transitioned to EASA C of A using the established transition process, however the BGA C of A will not be renewed and the transition must be processed by the CAA with EASA C of A and ARC issued before the glider may be operated. TNS 4-2008
57. **USE OF 30 DAY TICKETS** Only annex II gliders may be issued with a BGA 30 day ticket
58. **RECORDING SERIAL NUMBER OF LIFED ITEMS** At next annual inspection record the serial number of all lifed items in the log book and each time a lifed item is changed TNS 5-2009
59. **RELEASED PARTS MUST BE USED WHEREVER POSSIBLE.** Parts should be released with a EASA form 1 or FAA 8130-3 approval tag. Standard parts may be released with a Certificate of Conformity. Only in cases where there is no product support may non released parts be used, then they must be of suitable aviation quality. TNS 5-2009
60. [TURNBUCKLE LOCKING EASA Safety Information Bulletin SIB 2010-06 highlighting possible problem with incorrectly locked cable turnbuckles TNS 1-2010](#)