

Motor Glider and Tug issues

General information for guidance of inspectors collated from experience of incidents, published articles and general information.

Note: Deleted entries in this section have been entered into relevant sections within the compendium.

1. **Airworthiness Notices - CAA** Mandatory reading for all tug & SLMG owners & inspectors now only free from CAA web site TNS 5-2006.
2. **CAP 520 “Light Aircraft Maintenance”** should be purchased by all those who maintain civil registered aircraft.
3. **Gas collators in fuel systems** inspect the retention system for wear TNS 10/98
4. **Fuel contamination** (whether MOGAS or AVGAS) has been recurring. Reported in GASILs and AAIB bulletins throughout the year. TNS 12/88, 02/88
5. **Fuel hoses** advise on selection and maintenance of fuel hoses 08/01
6. **Gypsy induction flame** - traps may disintegrate and be swallowed by the engine. TNS 12/88
7. **Light Aircraft Maintenance Schedule (LAMS)** Latest issue is IAMS/A/1999 issue 2, amendment 0. Edition 5
8. **Lycoming, Gypsy (and other types)** cylinder studs must be correctly torqued and regularly re-torqued to minimise the probability of cylinder separation from the crank case and cracking the cylinder head. All in accordance with maintenance manual or instructions.
9. **Heat exchangers** (cabin & carb air) to be pressure tested to 20psi at C of A. ref CAA AN40 TNS 08/92
10. **Motor glider and tug** Continued airworthiness flight tests not required for EASA aircraft at C of A issue or renewal.
11. **PA-25 Pawnee** Wing root cluster Improved design to eliminate the inspection TNS 04/97 & TNS 08/97. Booker Air Services (01494 442501) can carry out the Failed landing gear. TNS 06/97 Deeside GC have embodied new STC mod eliminating most of repetitive NDT full details on web site [www.pawnee.soaring.org.uk] TNS 02/00 GASIL 2/97 recommends check cables to limit damage if u/c fails TNS 08/97 Parking brake malfunction FAA AD 85-02-05 TNS 12/97 “Magna Flite” starter motors found unsatisfactory on 0-540 engines TNS 02/99. Alternative hot air shutter failure causes power loss TNS 04/99. Cracked flap operating bell cranks TNS 1-2007

EASA approved AD RA 2006-06-01Rev 1 inspection of tail plane mounting spigots TNS 6-2006
12. **Propellers** check bolt torque and locking regularly. Must be to manufacturers' instructions to prevent damaged installations and propellers coming off. TNS 12/97

Motor Glider and Tug issues

13. **PVC** tubing shrinks and becomes hard and brittle with prolonged exposure to fuel. Replace “site tubes” regularly and use fuel proof tube for all other applications. TNS 04/99
14. **Schweitzer type banner towing hooks** Mod to add bearing to reduce release loads, very strongly recommended. BGA Mod “BGA/T/1/85” ref TNSs 08/86, 02/88 & 06/03
15. **Scott tail-wheel axis** vertical bolts should be replaced to prevent loss of the tail-wheel assembly.
16. **Tail-wheel leaf spring failures** TNS 06/88
17. **Undercarriage pivot bolts** should be replaced (or crack detected) at frequent intervals to prevent failures which may lead to significant damage. PA-18s, PA-25s, Citabrias, Bellanca Scouts, Austers etc.
18. **Unleaded MOGAS** CAA Airworthiness Notice 98C See TNS 12/99
19. **Water in Fuel** identification of water see TNS 06/97
20. **Bulk Fuel** Avgas contaminated by Diesel. Ensure safeguards and policy to prevent TNS 02/00
21. **Engines General** reminder that engines, propellers, magnetos, hoses have lives refer to LAMS schedule and manufacturers data TNS 08/00
22. **Duplicate inspections** Reminder that duplicate inspections are required if a control system or critical point is disturbed. TNS 08/00
23. **Torque loading** reminder to follow manufacturers specified torque loading TNS 12/00
24. **Heavy landings** Recommend “weight off” inspections following heavy landing TNS 12/00 Check crank case, crankshaft and propeller flange even if no prop strike on VW engines with VP props.
25. **Weighing** BGA recommends that Motor Gliders and Tugs are reweighed every eight years Airworthiness Notice 38 gives guidance for weighing after painting..
26. **Generic Requirement No 24** Motor gliders may obtain a variation from the rule to have at least 200 hours before TBO on first UK C of A. apply to CAA propulsion Dpt.TNS 08/02 GR No 24 NOT APPLICABLE to ROTAX and MID WEST engines TNS 04/05
27. **Piper Metal Battery Boxes** ensure that positive cable does not short on box lid due to being loose in insulator TNS 06/03
28. **Motor Glider Restoration Projects** inform CTO if major repair or long term restoration is planned see A/W notice 11. BGA can monitor motor Gliders.

Motor Glider and Tug issues

29. **Airworthiness Publications** The BGA Compendium of Airworthiness Directives does not include Tug AD's or other service information. Obtain information directly from approved sources.
30. **Fabric Inspections** CAA Generic Requirement 8 fabric inspections require details of the inspection to be entered into the aircraft log book TNS 10/04
31. **Non Amended Publications** with increase use of the internet, paper publications may not be amended. Either withdraw from use or mark "Uncontrolled Copy"
32. **Wooden Structure** BGA Inspection of wooden structures using Kaurite glue and 5 year repeat BGA 047/02/2006 issue 1, TNS 1-2006
33. **Permit Aircraft** MPD 1995-001R4 issued to clarify compliance with all applicable AD's on aircraft issued with CAA Permit to Fly. TNS 1-2006
34. **Lycoming Engines** EASA AD 2005-0023R2 requiring mandatory check for exhaust valve sticking and wear every 440 hours unless chrome guides are fitted. Lycoming crankshaft inspection FAA 2006-20-09 ECI Cylinders some have 800 hour life FAA AD 2006-12-07. TNS 5-2006
35. **A/W Notice mandatory inspections transfer to Generic Requirements** transferred requirements A/W n 88 – GR 6, A/Wn 20 – GR 8, A/Wn 38 – GR 10, A/Wn 75 – GR 17, A/Wn 35 – GR 24. GR's should be recorded in log books. Note changes to GR 17 and GR 24. 3-2006
36. **Primer Pipes** reported on Pawnee but applicable to most tugs. Primer line unclipped from bulkhead and chafed through on silencer. High risk of fire. Inspect regularly.
37. **Piper Cub** Incorrect bolts fitted to some lower lift strut fittings and may foul landing gear SB 1172. now available on internet www.newpiper.com Cracked flap operating bell crank (same as Pawnee) TNS 1-2007
38. **Rallye** Cracked elevator hinge TNS 1-2007
39. **Piper Cub stab trim screw jack failure TNS 2-2008.**
40. **CAA LAMP to be used for all EASA Tugs and SLMG after ARC is issued and by 28/9/08 at the latest. LAMP must be customised to each aircraft or type.**