BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET 1/2/99

PART 1 Herewith the 1999 Red Pages. Compendium of Airworthiness Directives, Mandatory Modifications, Special Inspections & Check List of Defects. Page 1, 2 3 and 4 cover Special Inspections for all types including items of equipment. Please check carefully for its application.

1.1. ALTIMETER SUB-SCALES must be checked for correct setting to avoid gross altitude errors in flight.

1.2. STEMME 10 SERIES. Current list of A/D's (11/98) herewith.

1.3. SCHEIBE GLIDERS & SLMGS. Current list of A/D's (12/98) herewith.

1.4. IAR-SA BRASOV herewith current list of A/D's (11/98).

1.5. GROB ASTIRS. A/D 1998-40 increases the Service Life to 12,000 hours.

1.6. CLUB LIBELLE 205 HORNET G.C.. A/D 1997-311/2 and Tech Note 206-19 - Concern Elevator Mass Balance.

1.7. ASH25/ASH25E. A/D 1998-486 extends the Service Life to 12,000 hrs and includes modifications to Elevator Control Linkage & Landing Gear.

1.8. SKYLARK 4 - Severe corrosion of the Rudder Horn. (Reported by Roger Andrews - Midland G.C.).

1.9. PIK 20E Intermittent Ignition faults have been traced to failure in the Spark Plug Connector.

Battery Vents blocked - could occur to any vented battery.

(Reported by John McWilliam).

1.10. BENDIX MAGENTOS - A/D 94-01-03-R2 is repeated herewith, for immediate action if not already actioned!

1.11. T61(F) VENTURES and all variants for Scheibe SF25/T61 - Corrosion of the rear fuselage structure, in the area of the fin attachments, has been identified on several samples.

PART TWO GENERAL MATTERS

2.1. TURBO EQUIPPED SAILPLANES.

BGA FORM 267 (T) has been developed for the systematic inspection of Turbo equipped Sailplanes. Such sailplanes may be certificated with the Turbo removed or inoperative, at the owner/operators discretion. (Produced by Alan Duerden).

2.2. MAGNA Flite Lightweight Starter Motors have been found to be unsatisfactory on Lycoming 0-540 engines in Pawnees. (Reported by Southdown G.C.).

2.3. The Maintenance of Tugs & SLMG's requires rectification worksheets, and Light Aircraft Schedule proforma records to be kept, associated with comprehensive Log Book entries. CofA renewal submissions to BGA must include such records. The Red Pages in CAA Log Books must be updated to record "MANDATORY" actions, derived from A/D's, TNS etc.

A HAPPY NEW YEAR TO ALL OUR READERS

Dick Stratton
Chief Technical Officer

LBA AD No.	*Description*	*Applicability – Compliance – Requirement*
82–50/2	Fuel shut-off valve service life limitation.	Applicable to SF25 B,C,D,E and K Motorfalke all Serial Nos. Compliance required as detailed in Scheibe Technical Note No. 653–41.
82–51/2	Fuel shut-off valve service life limitation.	Applicable to SF28A Tandem Falke all Serial Nos. Compliance required as detailed in Scheibe Technical Note No. 770–13.
82–134/2	Main wing joint.	Applicable to SF25 B, C, D and E Serial Nos as detailed in Airworthiness Directive. Compliance required as detailed in Airworthiness Directive.
82–135	Main wing joint.	Applicable to SF28A Tandem Falke all Serial Nos. Compliance required as detailed in Airworthiness Directive.
84–198	Wear of the ball bearing cages.	Applicable to SF25 C, E and K Serial Nos as detailed in Airworthiness Directive. Compliance required as detailed in Scheibe Technical Note No. 653–47.
88–162/2	Wing – Fuselage connection. Insufficient structural strength.	Superseded by AD 89–73.
89–73	Wing – Fuselage connection. Corrective measures to fully re-establish airworthiness.	Applicable to SF34 and SF34B Serial Nos 5102 to 5131. Compliance required as detailed in Airworthiness Directive. Scheibe Technical Note No 336–2 also refers.
94–261	Flight Controls – Inspection of the airbrake – pulley – connection to the rip block.	Applicable to SF 25A, SF 25B, SF 25C, SF 25D, SF 25E, SF 25K and SF 28A. Compliance required as detailed in Airworthiness Directive. Scheibe Service Bulletin No 653–62/770–18 and Working Instruction 653–62–142/770–18–142 also refer.
97–140	Fuel shut-off valve TRUMA V8.	Applicable to SF 25, SF 28 and SF 36 equipped with new fuel shut-off valves TRUMA V8. Compliance required as detailed in Airworthiness Directive. Scheibe Service Bulletins 653–67, 770–20 and 819–4 also refer.

LBA AD No.	*Description*	*Applicability – Compliance – Requirement*
1998–435	Flight Controls – Cracks on the combined aileron and elevator-bellcrank of controls behind the fuselage mainframe/under the rear seat.	Applicable to SF 28A Tandem Falke all Serial Nos. Compliance required as detailed in Airworthiness Directive. Scheibe Service Bulletin 770–23 also refers.

Issue 8
November 1998

STEMME S10 SERIES MOTOR GLIDERS

PART 1 – LUFTFAHRT-BUNDESAMT AIRWORTHINESS DIRECTIVES

LBA AD No.	*Description*	*Applicability – Compliance – Requirement*
92–197	Replacement of the front O-ring at the mounting part of the pitot tube.	Applicable to S10 serial numbers up to 35. Compliance is required as detailed in AD. Stemme Technical Bulletin No. 31–10–003 also refers.
94–260	Flight Controls – Inspection of the turn buckle eye bolt in the rudder control cable system.	Applicable to S10 serial numbers 10–03 to 10–58. Compliance is required as detailed in AD. Stemme Service Bulletin No. A31–10–018 also refers.
95–177/2	Exchange, Inspection and Modification of the propeller blade suspension fork – Cancellation of propeller TBO (100h time of service).	Applicable to S10–V aircraft serial numbers 14–002 up to 14–026 including all conversions 14–003M up to 14–063M. Compliance required as detailed in AD. Stemme Service Bulletin No. A31–10–020 also refers.
95–273	Inspection of the engine and fuel filters and amendment to the flight manual.	Applicable to S10 aircraft serial numbers 10–12 to 10–60 and S10–V aircraft serial numbers 14–002 to 14–022 and converted aircraft serial numbers 14–012M to 14–060M. Compliance required as detailed in AD. Stemme Service Bulletin No. A31–10–021 and Limbach Service Bulletin No. 47 also refer.
96–300	Cracks in horizontal stabilizer fitting.	Applicable to S10 aircraft serial numbers 10–03 up to and including 10–63 and S10–V aircraft serial numbers 14–002 up to and including 14–026 and transformed aircraft 14–012M up to and including 14–063M. Compliance required as detailed in AD. Stemme Service Bulletin A31–10–022 also refers.
1998–323/2	Flight Controls – Cracking in the elevator control coupling.	Applicable to S10 aircraft as detailed in AD. Compliance required as detailed in AD. Stemme Service Bulletin A31–10–032 also refers.

LBA AD No.	*Description*	*Applicability – Compliance – Requirement*
1998–324	Flight Controls – Replacement of the flap drive rocker P/N 10SW–RMW.	Applicable to S10 aircraft serial numbers 10–03 up to 10–26 and converted aircraft from 14–012M up to 14–026M. Compliance required as detailed in AD. Stemme Service Bulletin A31–10–017 also refers.
1998–400	Engine Controls – Redesign of wastegate control and exchange of oil tubes.	Applicable to S10–VT aircraft serial numbers 11–004 up to 11–006 and 11–008 up to 11–013. Compliance required as detailed in AD. Stemme Service Bulletin A31–10–034 also refers.

Issue 7
November 1998

IAR-SA BRASOV SERIES MOTOR GLIDERS

PART 1 – IAR-SA BRASOV SERVICE BULLETINS CLASSIFIED AS MANDATORY BY ROMANIAN CAA

SB No.	*Description*	*Applicability – Compliance – Requirement*
IS-28M2/CO-2	Product improvement.	Applicable to all IS-28M2 motor gliders. Modifications 145, 147, 149, 153, 154, 155, 156, 165 and 167 should have been embodied prior to 1983.
IS-28M2/EO-3	Placard – landing gear lock.	Applicable to all IS-28M2 motor gliders. Modification 198 should have been embodied by 15 March 1979.
IS-28M2/CO-4	Landing gear – down and locked indicator.	Applicable to all IS-28M2 motor gliders. Compliance with Service Bulletin by 30 August 1979.
IS-28M2/EO-5	Maintenance practices and Flight and amendments.	Applicable to all IS-28M2 motor gliders up to Maintenance Manual Serial No. 33 except Serial Nos 04, 07, 09 and 23. Should have been complied with prior to 1983.
IS-28M2/EO-8	Overhaul life.	Applicable to all IS-28M2 motor gliders.
IS-28M2/EO-10	Flight Controls.	Applicable to all IS-28M2 motor gliders. Compliance required by 1 March 1983.
IS-28M2/EO-11	Replacement of speed limitation placard and amending of the Flight and Maintenance Manuals.	Applicable to all IS-28M2 motor gliders. Compliance required as detailed in Service Bulletin.
IS-28M2/EO-12	Safe and service life increase.	Applicable to all IS-28M2 motor gliders. Compliance required as detailed in Service Bulletin.
IS-28M2/EO-13	Replacement of rudder bar axle fixing rivet.	Applicable to IS-28M2 and IS-28M2A Serial Nos as detailed in Service Bulletin. Compliance required as detailed in Service Bulletin.

PART 2 – CAA ADDITIONAL AIRWORTHINESS DIRECTIVES

CAA AD No.	*Description*	*Applicability – Compliance – Requirement*
014–11–82	*Flight Controls* – Inspection of aileron control rods and control cables turnbuckle locking wire.	Applicable to all IS–28M2 aircraft. Compliance required as detailed: (a) INSPECT the control rod in the wing connected to the aileron for bowing not later than 31 January 1983. Replace if found bowed. (b) INSPECT the control rod before flight if aileron has been forced through mis-handling during ground handling. Replace before flight if found bowed. (c) INSPECT the control rod before further flight if aircraft has been subjected to an uncontrolled tail slide during aerobatic manoeuvres. Replace before flight if found bowed. (d) INSPECT cable turnbuckles on control cables not later than 31 January 1983; if locking wire is made from brass replace with steel locking wire.

PART 2 – CAA ADDITIONAL AIRWORTHINESS DIRECTIVES

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Airworthiness Directive 1998-480

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Grob

Effective Date: December 17, 1998

Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	Grob, Mindelheim, Germany
Type:	SPEED ASTIR
Models affected:	SPEED ASTIR II and SPEED ASTIR IIb
Serial numbers affected:	SPEED ASTIR II: 4001 up to 4027 and SPEED ASTIR IIb: 4028 up to 4107
German Type Certificate No.:	320

Subject:
Extension of service life

Reason:
The results of performed fatigue tests have shown, that the service life of GRP/CRP sailplanes con be increased to a maximum of 12000 flight hours.

Action:
Inspection and exchange of pages into the Flight and Maintenance Manuals in accordance with the Service Bulletin.

Compliance:
The inspection must be done as prescribed into the Service Bulletin. The exchange of the pages into AFM and MM must be done during the next annual inspection, but not later than May 01, 1999..

Technical publication of the manufacturer:
Grob Service Bulletin No. 320-7 dated March 23, 1998 which becomes herewith part of this AD and must be obtained from Messrs.:

Grob-Werke GmbH & Co.KG
Aerospace Division
P.O. Box 1257
D-87712 Mindelheim
Federal Republic of Germany
Tel.: ++49 8268 / 998-0
Fax: ++49 8268 / 998-190

Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:
An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

Airworthiness Directive 1997-311/2

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Glasflügel

Effective Date: December 03, 1998

Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	Streifeneder, Grabenstetten, Germany
Type:	Club Libelle 205
Models affected:	Hornet C
Serial numbers affected:	all
German Type Certificate No.:	304

Subject:
Flight controls - elevator - Mass and residual moment of elevator exceeding current established values/limit

Reason:
Checks of elevator masses and residual moments in accordance with AD 1997-311 (Streifeneder Technical Note No. 206-18) gave evidence of heavier elevators, necessitating a new flutter calculation and re-determination of the permissible values.

Action:
Perform new flutter calculation and re-determination of the permissible values. Inspection of the elevator for the correct mass balance and if necessary, remove existing mass balance weight and install new weight and insert on page 47a of the Flight- and Service Manual the new values/limits in accordance with the Technical Note.

Compliance:
Action must be performed at latest during the next periodic inspection.

Technical publication of the manufacturer:
Streifeneder Technical Note No. 206-19 dated July 22, 1998 which becomes herewith part of this AD and must be obtained from Messrs.:

Hansjörg Streifeneder
Glasfaser-Flugzeug-Service GmbH
Hofener Weg

D-72582 Grabenstetten
Tel.: +49 (0) 7382 / 1032
Fax: +49 (0) 7382 / 1629

Federal Republic of Germany

Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

Note:
This AD supersedes the AD-No. 1997-311 dated October 23, 1997.

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

H. Streifeneder Glasfaser-Flugzeug-Service GmbH Hofener Weg D-72582 Grabenstetten	**Technical Note** **No. 206-19**	Type Certificat Data Sheet No. 304

Subject:	Mass and residual moment of elevator exceeding current established values/limits
Affected:	Sailplane model " Hornet C "
Urgency:	Not later than on the occasion of the next periodic inspection
Reason:	Checks of elevator masses and residual moments as per Technical Note No. 206-18 gave evidence of heavier elevators, necessitating a new flutter calculation and a re-determination of the permissible values.
Action:	Installation of additional mass balance on elevator halves if values shown on page 47a of the Service Manual are exceeded: Remove existing mass balance and install cast lead strips in original position (use a two-component bonding agent and, after curing, secure strips by means of 3 aluminium rivets. Reinstall elevator halves and check for an equal travel over the previous range. If necessary, trim front edge of lead strips. Finally check total elevator mass and residual moment for compliance with revised values and complete installation. Page 47 a of the Service Manual may be altered as follows: Elevator: Mass (without mass balance): 1,5 - 2,4 kg (3,31-5,29 lb) stat. moment (") : 20 - 68 Ncm Mass (") : 1,6 - 2,6 kg (3,53-5,73 lb) stat. Moment("): 18,5-65 Ncm At the tip of each elevator a mass balance weight of 0.1 kg (0-22lb) is to be installed at y/s =0,8-1,1m (41,5-43,3 in.) with a lever arm of 15 mm (0,59 in.)

For the control surfaces the following values and tolerances are applicable:

Allerons (configuration without water ballast)

Mass	: 1,90-2,60 kg	(without mass balance)
stat. moment	: 70-95 Ncm	(without mass balance)
Mass	: 3,20-4,50 kg	(with mass balance)
stat. moment	: 0-45 Ncm	(with mass balance)

Mass balance to be installed spanwise from 0.58 to 2,32 m

Allerons (configuration with water ballast)

Mass	: 1,90-2,60 kg	(without mass balance)
stat. moment	: 70-95 Ncm	(without mass balance)
Mass	: 3,20-4,50 kg	(with mass balance)
stat. moment	: (-10)-27 Ncm	(with mass balance)

Mass balance to be installed spanwise from 0.58 to 2,32 m

Elevator (both halves incl. U-shaped bracket)

Mass	: 1,5-2,4 kg	(without mass balance)
stat. moment	: 20-68 Ncm	(without mass balance)
Mass	: 1,6-2,6 kg	(with mass balance)
stat. moment	: 18,5-65 Ncm	(with mass balance)

A mass balance weight of 0,1 kg is to be installed at the tip of each elevator half at y/s = 0,8-1,1 with a lever arm of 15mm
Flutter calculation additionally take into account the balancing effect of the vertical elevator actuating rod of 0,26kg and a concentrated mass balance in the symmetrical plane of 0,22 kg (i.e. 0,48 kg with a lever arm of 72 mm).

Rudder

Mass	: 1,7-2,1 kg	(without mass balance)
stat. moment	: 85-110 Ncm	(without mass balance)
Mass	: 2,7-3,7 kg	(with mass balance)
stat. moment	: 0-45 Ncm	(with mass balance)

Rudder mass balance weights (average values) are to be installed as follows:

Section	1	2	3	4
Lenght (mm)	300	300	300	300
Weight of mass balance (kg)	-	0,65	0,65	-
Distance to hinge axis (mm)	-	-50	-44	-

Numbering of section commences at fuselage center line

Airworthiness Directive 1998-486

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Schleicher

Effective Date: January 14, 1999

Affected:

Kind of aeronautical product:	Sailplane and Powered Sailplane
Manufacturer:	Schleicher, Poppenhausen, Germany
Type:	ASH 25 and ASH 25 E
Models affected:	ASH 25: all; ASH 25 E: ASH 25 E
Serial numbers affected:	all
German Type Certificate No.:	364 and 858

Subject:
Increase of the service life from 6000 to 12000 hours; Inspection of elevator control linkage; additional safety device for the landing gear rear bolts and exchange of pages into the AFM and MM.

Reason:
Increase of the service life from 6000 to 12000 hours
Fatigue tests on fibre composite wings and wing spars have demonstrated that a service life expectancy of 12000 hours can be reached for these structural components. As these fatigue test programs did not examine the entire aircraft made of fibre composite, the service life of 12000 hours can be granted only if the long-term airworthiness of each individual aircraft is demonstrated in a special multi-stage inspection program (over and above the mandatory annual C of A inspections) for the purpose of increasing the service life.

Inspection of the elevator control linkage
In the case of two ASH 25 damages to the elevator control linkage have been overlooked after inadequately accomplished repairs in the areas of the landing gear and of the fin. These damages due to overstressing the elevator control linkage can lead to reduced control stiffness. The decrease of elevator frequency caused by this can in turn when being initiated accordingly, lead to a frequency coupling with the horizontal stabiliser and thus lead to flutter.

Additional safety device for the landing gear rear bolts
The two bolted connections of the landing gear H-strut to the fittings at the rear landing gear bulkhead have come loose in single cases. If these bolted connections are not covered with screw safety varnish, the bolted connection on each side must be undone and a lockplate must be added which must be bent upwards after the retightening of the bolted connection.

Action:
In accordance with the Technical Note: Increase of service life after the „Inspection Program To Increase The Service Life ASH 25" has been done; Inspection, and if necessary repair, of the elevator control linkage; Installation of a lockplate for the landing gear rear bolts and exchange of pages into the AFM and MM.

Compliance:
1. Increase of service life: before reaching 6000 flight hours.
2. Inspection of the elevator control linkage: before the next flight, if a major repair in the landing gear or the fin area was done in the past years.
3. Additional safety device for the landing gear rear bolts: within the next C. of A. inspection at latest.
4. Exchange of pages into the AFM and MM: before the next flight.

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

Technical publication of the manufacturer:
Alexander Schleicher ASH 25 Technical Note No. 14 and ASH 25E Technical Note No. 12, both dated March 03, 1998 which becomes herewith part of this AD and must be obtained from Messrs.:

Alexander Schleicher GmbH & Co.
Segelflugzeugbau
P.O. Box 60

D-36161 Poppenhausen
Federal Republic of Germany
Phone: ++ 49 6658 890
Fax: ++ 49 6658 8940

Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

Holders of affected aircraft registered in Germany have to observe the following:
As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:
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PIK.20E

SPARKPLUG CAP FAILURES

Event

An intermittent failure of one cylinder when restarting the engine in the air was eventually traced to a break in the 'bakelite' type brown plastic plug lead arm of a 90° BOSCH Spark Plug Cap marked 0 356 351 032. Tracking burns confirmed it had been leaking HT to earth over a period of time.

HT spark tests had repeatedly passed the shielded lead and the cap assembly as serviceable and ground starts had not been difficult. It appears that reduced pressure at height, or air loads in flight were a factor, unrepeatable in ground tests.

The cap was metal-shielded and the break was invisible until exposed by the extreme action of removing the steel clips and covers and dismantling the shielding.

A new Bosch shielded plug cap was then fitted but still an intermittent snag appeared.

A major rebuild, which ultimately included the engine, carburettors, electrics and ignition then commenced. Late on in this protracted marathon the spark leads were again pulled as a precaution and to my horror the new spark plug cap came apart in the same place as the first one!

At this point I had a ceremonial burial of all known Bosch Shielded Spark Plug caps, switching to the simpler NGK LBO5EZ.

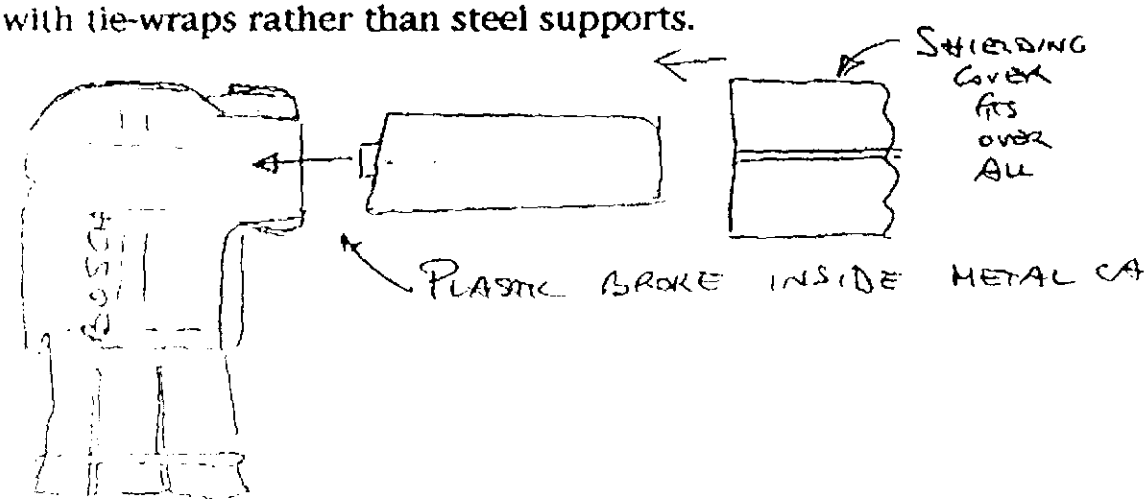
The Pik 20 E, to its credit, and my considerable relief, transits very competently on one cylinder! The lack of shielding in the HT circuit has not affected radio performance.

Conclusion

Brittle plastic is not the best material to rely on in the spark plug caps of vibrating SLMG engines.

Recommendation

Use a simpler, rubber insulated spark plug cap and secure it in place with tie-wraps rather than steel supports.



With Glider Station 1564

McWILLIAM TECHNOLOGY LTD

3 BRADDOCK REACH, KILLINCHY
CO. DOWN BT23 6PY

Tel: 01 238 542 300 Country
Fax: 01 238 542 345 Code 44
e-mail: mcwtech@mcwm.u-net.com

PK 20E

From John McWilliam. 21 Dec 1998

Inspector's Information for BGA

BATTERY VENT BLOCKED

Event

Prior to fitting a new Battery to an SLMG a bench test of it, by discharge and re-charge, was carried out.

During re-charging it was observed that the sides of the new battery were starting to bulge outwards.

Removal of a filler plug resulted in a spurt of air escaping from the battery.

Conclusion

The side vent provided was not allowing the release of building pressure in the Battery.

The pre-installation test probably saved an in-flight Battery explosion, either due to altitude or extended in-flight re-charging.

Recommendation

Confirm that a Battery's vent is in fact correctly functioning prior to installing it in the aircraft.

P.S. We have tried an OPTI-MATE Battery Charger, a type which, it is claimed, can be left permanently on charge to keep a battery constantly topped up.

Our experience is that the Battery was run dry of water in a much shorter time than usual and we have returned to a standard charger.

BENDIX MAGNETO's - SLMR's. (T61's etc)

BW 95-13

Bendix pages 10/97

TELEDYNE CONTINENTAL MOTORS
AIRWORTHINESS DIRECTIVE
APPLIANCE
SMALL AIRCRAFT & ROTORCRAFT

94-01-03 R2 Teledyne Continental Motors: Amendment 39-9271. Docket 93-ANE-44. Revises AD 94-01-03 R1, Amendment 39-9006.

Applicability: Teledyne Continental Motors (TCM), formerly Bendix magnetos:

S-20, S-200, and S-600 series magnetos with red or black Bendix (not TCM) data plates having serial numbers (S/N's): lower than 2000000 without any letter prefix; or S/N's lower than A16058 having the letter "A" prefix.

S-20, S-200, and S-600 series magnetos with blue Bendix (not TCM) data plates marked "REMANUFACTURED" having S/N's lower than 901001.

S-1200 series magnetos with red Bendix (not TCM) data plates having S/N's: lower than 2000000 without any letter prefix; or S/N's lower than A132844 having the letter "A" prefix.

S-1200 series magnetos with blue Bendix (not TCM) data plates marked "REMANUFACTURED" having S/N's lower than 901001.

These magnetos are installed on but not limited to reciprocating engine powered aircraft manufactured by Beech, Cessna, Maule, Mooney, and Piper.

NOTE 1: The FAA has received reports of some confusion as to what is meant by S-20, S-200, S-600, and S-1200 series magnetos as referenced in TCM Mandatory Service Bulletin (MSB) No. MSB644, dated April 4, 1994, and this AD. A typical example is S6RN-25, where the S designates single type ignition unit, the 6 designates the number of engine cylinders, the R designates right hand rotation, the N is the manufacturer designator (this did not change when TCM purchased the Bendix magneto product line), and the number after the dash indicates the series (a -25 is a S-20 series magneto, while a -1225 is a S-1200 series magneto).

NOTE 2: This AD applies to each magneto identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For magnetos that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must use the authority provided in paragraph (k) to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any magneto from the applicability of this AD.

Compliance: Required as indicated, unless accomplished previously.

To prevent magneto failure and subsequent engine failure, accomplish the following:

(a) No action is required for those magnetos in compliance with AD 94-01-03 or 94-01-03 R1.

(b) An optional method of compliance with this AD is to replace the Bendix magnetos with Slick magnetos where FAA approval has been granted for that application.

(c) If a Bendix magneto data plate has been replaced with an overhaul facility's data plate, this AD is still applicable to that magneto since the magneto is a Bendix magneto.

(d) Yellow Bendix or TCM service spare data plates may have been installed during a field overhaul; use model and S/N to determine applicability.

(e) Magnetos built by Bendix in Jacksonville, Florida, and Magnetos built by TCM in Atlanta, Georgia, as indicated on the data plate, are not affected by this AD.

(f) The paint on some early data plates may have been obliterated and the data plate will appear silver in color; use model and serial number to determine applicability.

(g) For Bendix S-20 and S-200 series magnetos, replace Bendix ignition coils and rotating magnets identified in the Detailed Instructions of TCM MSB No. MSB644, dated April 4, 1994, with serviceable TCM or Parts Manufacturer Approval (PMA) ignition coils and rotating magnets at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours time in service (TIS) after the effective date of this AD, whichever occurs first.

(h) For the Bendix S-600 series magnetos, replace Bendix rotating magnets identified in the Detailed Instructions of TCM MSB No. MSB644, dated April 4, 1994, with serviceable TCM or PMA rotating magnets at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours TIS after the effective date of this AD, whichever occurs first.

NOTE: The ignition coils on the S-600 series magnetos already incorporate the improved design.

(i) For the Bendix S-1200 series magneto, replace Bendix ignition coils identified in the Detailed Instructions of TCM MSB No. MSB644, dated April 4, 1994, with serviceable TCM or PMA ignition coils at the next 100 hour inspection, the next annual inspection, the next progressive inspection, or the next 100 hours TIS after the effective date of this AD, whichever occurs first.

NOTE: The rotating magnets on the S-1200 series magnetos already incorporate the improved design.

(j) After compliance with paragraphs (d), (e), or (f) of this AD, as applicable, and prior to further flight, mark the magneto in accordance with the Identification Instructions of TCM SB No. MSB644, dated April 4, 1994.

(k) An alternative method of compliance or adjustment of the initial compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft Certification Office.

NOTE: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta Aircraft Certification Office.

(l) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(m) The actions required by this AD shall be done in accordance with the following service document:

Document No.	**Pages**	**Date**
TCM SB No. MSB644	1-3	April 4, 1994

Total pages: 3.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 as of September 6, 1994. Copies may be obtained from Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601; telephone (205) 438-3411. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(n) This amendment becomes effective on June 28, 1995.

FOR FURTHER INFORMATION CONTACT:

Jerry Robinette, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, Campus Building, 1701 Columbia Ave., Suite S-160, College Park, GA 30337-2748; telephone (404) 305-7371; fax (404) 305-7348.

BGA AIRWORTHINESS REPORT / TURBO GLIDER SUPPLEMENT

BGA FORM / INSP 267 (T)

GLIDER TYPE _____

BGA No _____

ENGINE TYPE _____

SERIAL No _____

ENGINE HRS _____

ITEM	DESCRIPTION	INITIALS	DATE	REMARKS
1	Engine Pylons & Mountings			
2	Gas Strut			
3	Electric Actuator			
4	Electrical Wiring			
5	Fuel Tank			
6	Fuel Pipes			
7	Fuel Cock			
8	Fuel Vents			
9	Fuel Pump			
10	Decompression Valves			
11	Decompression Handle & Circuit			
12	Spark Plugs & Harness			
13	Propeller & Hub			
14	Cable Guides on Engine Doors			
15	Safety Springs			
16	Extension / Retraction Mechanism			
17	Exhaust System			
18	Engine			
19	Engine Instruments			
20	Glider General			
21	Engine Batteries			
22	Engine Operating Placards			
23	Glider - Engine Performance Air Test			
24	Oil / Fuel / Exhaust Leaks			
25	Mandatory Mods / Inspections			
26	Log Book Entries			

Date	OAT @ 2000ft	Start Height	Finish Height	Height Gain	Pass / Fail

GENERAL REMARKS

Signed_____ Insp No_____ Date_____

Item	Component	Task Description
1	Engine Pylons & Mountings	• Inspect mountings for delamination & damage. • Inspect pylons for cracks. • Inspect condition of rubber shock mounts.
2	Gas Strut	• Look for leaks. • Check correct operation & security.
3	Electric Actuator	• Check correct operation & security.
4	Electrical Wiring	• Look for chafing. • Check security. • Check wiring is clear and tension free during extend / retract sequences.
5	Fuel Tank	• Look for leaks. • Check for water contamination. • Check for glass fibre residue.
6	Fuel Pipes	• Look for leaks. • Look for chafing. • Check security.
7	Fuel Cock	• Check for smooth, free operation.
8	Fuel Vents	• Check opening is clear.
9	Fuel Pump	• Clean fuel filter.
10	Decompression Valves	• Disassemble, clean, check & refit.
11	Decompression Handle & Circuit	• Check condition & function.
12	Spark Plugs & Harness	• Remove, clean, set gap and refit sparkplugs. • Inspect & refit harness.
13	Propeller & Hub	• Inspect blades for damage. • Cheack for ease of operation. • Lubricate as necessary. • Inspect hub for cracks.
14	Cable Guides on Engine Doors	• Check condition, function & tension of cables. • Lubricate as necessary.
15	Safety Springs	• Check condition & attachment to operating wires.
16	Extension / Retraction Mechanism	• Check condition & function. • Lubricate.
17	Exhaust System	• Inspect for cracks, particularly at the welded joints. • Check security.
18	Engine	• Clean. • Check all nuts, bolts and their locking positions. • Inspect for leaks and cracks.
19	Engine Instruments	• Check for correct indications.
20	Glider General	• Check security of all items that could vibrate loose. • Security and condition of engine viewing mirror.

21	Engine Batteries	• Check condition.
22	Engine Operating Placards	• Correct Placard is prominently displayed in cockpit
23	Glider	• Engine Performance Air Test. • (Gain 2000ft in 10 minutes. Start climb at 2000ft)
24	Oil / Fuel / Exhaust Leaks	• Check after test flight.
25	Mandatory Mods / Inspections	• As necessary
26	Log Book Entries	• Complete as necessary