



GFA AD-642
(ISSUE 1)

GFA AIRWORTHINESS DIRECTIVE

TYPE AFFECTED: STEMME S-10, Serial No's 10-03 up to 10-56.
 STEMME S-10V, Serial No's 14-001 up to 14-030.
 STEMME S-10VT, Serial No's 11-001 up to 11-100.

SUBJECT: Inspection of brass fuel connectors.

REASON: A leaking brass fuel connector was found during routine maintenance work. The brass connectors were introduced with SB A31-10-061 and SB A31-10-063. The brass connectors were subsequently used in serial production and supplied as spare parts. The leaking connector was of the original design, identified as "Index 01.a" and was used from Feb 02 to April 02, when a new design was introduced, identified as "Index 02.a"

DOCUMENTATION: EASA has produced EAD 2006-0310-E, and Stemme has produced SB A31-10-077 which is attached & forms part of this AD. Note: Only Pages 4, 5 & 6 of this SB (the English translation) are included.

ACTION REQUIRED: In accordance with SB A31-10-077 carry out the following actions.
 ACTION 1: Inspect the couplings & identify whether they are plastic or brass.
 ACTION 2: If the connectors are brass, identify whether they are of the type Index 01.a or 02.a. The shanks of 7 mm and 8 mm twist drills will assist in identification.
 ACTION 3: Only if the connectors are of the type Index 01.a, replace them with connectors of the type Index 02.a.

WEIGHT AND BALANCE: Negligible.

IMPLEMENTATION: Before further flight. The actions may be performed by the holder of a GFA 1109 Maintenance Authority endorsed for replacement of components or higher authorization.

COMPLIANCE: The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia Inc.

SIGNED:

SENIOR TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

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OF AUSTRALIA INC.

STEMME F & D DO: EASA.21J.250	Service Bulletin	Document Number: A31-10-077
	Fuel Connector – hose connector 10AB-75	Am.-Index: 01.a
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This Service Bulletin provides from page 1 to 3 the original version in German, approved by the EASA, and from page 4 to 6 a translated version in English. The translation has been performed to the best of our knowledge and judgement.

1 Subject:

Action 1: Inspection of the installed version of quick-type fuel connectors (plastic or brass)

Action 2: only if brass ==> identification of the installed version of the brass hose connectors 10AB-75 (modification index 01.a or 02.a)

Action 3: only if index is 01.a ==> replacement of hose connectors of modification index 01.a by connectors of modification index 02.a

2 Affected Powered Sailplane:

Motor glider STEMME S10, all models;

EASA Type Certificate No. EASA.A.054 / FAA-TCDS: G06CE, G58EU

affected S/N:	S10:	10-03 up to 10-56
	S10-V:	14-001 up to 14-030 and all converted variants 14-003M up to 14-056M
	S10-VT:	11-001 up to 11-100

3 Time of compliance:

Before the next flight.

4 Background Information:

A leaking brass fuel connection (part no. 10AB-75) was found during maintenance work.

This brass fuel connection was first time introduced with the SB A31-10-061 „Additional Measures fire protection S10-VT“ and with the SB A31-10-063 „Additional Measures fire protection for S10 and S10-V (US mandatory). These brass connections were used later in serial production and as spare part.

The leaking brass connector was according to the design modification index 01.a. It was valid for the period February 2002 until April 2002. A modified version of the hose connector was introduced in April 2002, after the old version turned out to be susceptible to improper assembly and maintenance work. The modified version has the design modification index 02.a.

Any installed hose connectors of design modification index 01.a must be visually identified and replaced by the modified version of design modification index 02.a to exclude a possible leakage.

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5 Actions:

All actions must be performed on both sides of the fuel connection between the wing and the fuselage!

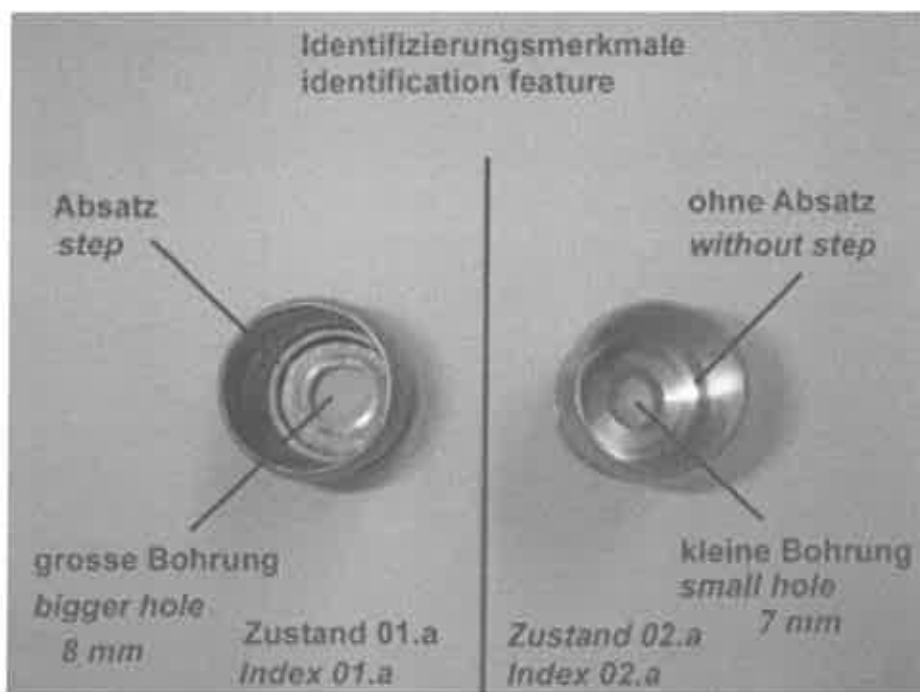
Action 1: Visual inspection for the installed type of fuel connectors

- plastic quick-type fuel connectors (gray) → no more measures necessary
- brass quick-type fuel connectors → more measures necessary (2, and if applicable 3)

Action 2: Identification of the version of the installed brass hose connectors 10AB-75

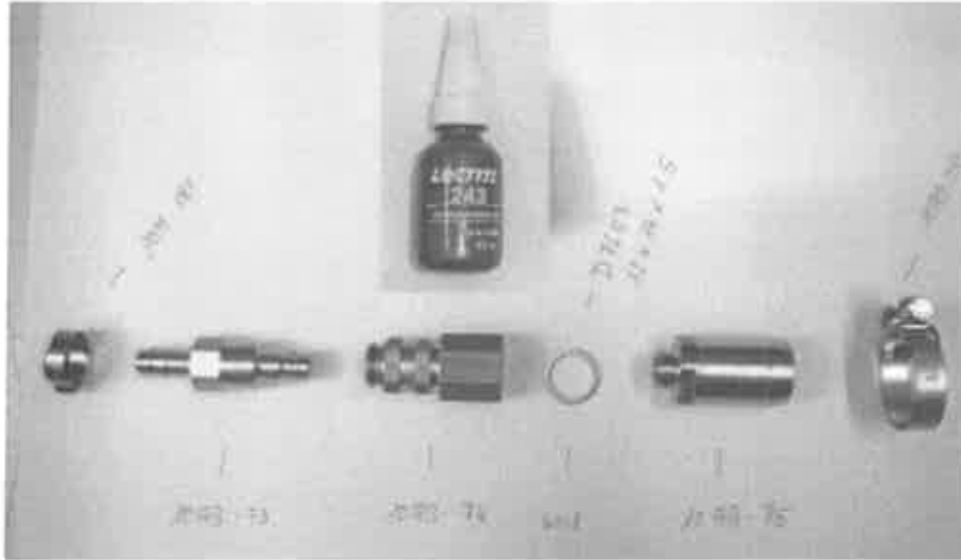
Remark: The hose connector 10AB-75 is the connector between the yellow Tygon-hose and the quick-type fuel connector on the side of the inner wing. On the one side it is clamped to the Tygon-hose and on the other side it is screwed together with the quick-type fuel connector by use of some Loctite.

- disconnect the quick-type fuel connectors between the wing and the fuselage
- If the fuel tanks are not empty, a second person should push down the wing to be inspected by hand. No fuel must be visible inside of the yellow "Tygon"-hose.
- unscrew the clamp for the hose connector 10AB-75
- visual identification of the design modification index of the hose connector according to the picture:



- if the **design modification index 01.a** will be identified: next step must be **action 3**.
- the existing fuel connector may be reassembled with the existing clamp if the design of the hose connector 10AB-75 confirms with modification index 02.a
- Inspection for tight mounting and leak tightness
- repeat action 2 (identification of installed version) for the other side of the wing

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Action 3: replacement of hose connectors of modification index 01.a by connectors of modification index 02.a

- Disassemble the old hose connector 10AB-75 from the quick-type fuel connector by heating it up slightly (Loctite was used during assembly), then unscrew the quick-type fuel connector from the hose connector
- the sealing ring and the connector must be mechanically cleaned (brass brush)
- assemble the new hose connector (design modification index 02.a) with Loctite 243 (fastening torque 10Nm / 7.38 lb.ft.)
- install the new connector with the clamp
- Inspection for tight mounting and leak tightness

6 Mass and balance:

No changes.

7 Associated documents/parts:

Necessary parts for action 3 can be ordered from the Stemme AG, Flugplatzstrasse F2 Nr.7, D-15344 Strausberg.

8 Accomplishment and log entry:

An authorized mechanic may carry out the actions described in this service bulletin.

The completion of this SB must be checked and entered in the airplane's log book by a licensed inspector.
The regulations on the keeping of service records must be adhered to.

(End)