

Airworthiness Directive Schedule

Gliders

Stemme S10 Series

25 May 2017

- Notes**
1. This AD schedule is applicable to Stemme S10 series gliders manufactured under EASA Type Certificate Numbers:

| Aircraft Model: | EASA Type Certificate No: | Manufacturer: |
|-----------------|---------------------------------|---------------|
| S 10 | A.054 (formerly LBA TC No. 846) | Stemme AG |
| S 10-V | A.054 (formerly LBA TC No. 846) | Stemme AG |
| S 10-VT | A.054 (formerly LBA TC No. 846) | Stemme AG |

2. The European Aviation Safety Agency (EASA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these gliders. State of Design ADs can be obtained directly from the EASA web site at <http://ad.easa.europa.eu/>
3. The date above indicates the amendment date of this schedule.
4. New or amended ADs are shown with an asterisk*

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| | From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and can be obtained directly from the National Airworthiness Authority (NAA) web site. The link to the NAA web site is available on the CAA web site at http://www.caa.govt.nz/Airworthiness_Directives/states_of_design.html If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ they will be added to the list below..... | 10 |
| * 2017-0072-E | Front Gearbox – Inspection | 10 |

DCA/STEMME/1 Air Brake Eye Bolt – Replacement, and Landing Gear Door - Inspection

Applicability: Model S 10 S/N 10-03 up to 10-63 and S10-V S/N 14-002 up to 14-030, 14-012M up to 14063M.

Requirement: To prevent vibration of the air brake upper covering straps at airspeeds approaching Vne, accomplish the following:-

1. Reduce the Vne to 119 KIAS (220 km/h). Mark a new "Red Line" on the airspeed indicator at 119 KIAS (220 km/h).
2. Replace the eye bolts on the air brake per Stemme SB A 31-10-055, Amendment-Index 02.a dated October 09, 2000. After this replacement, the reduced Vne no longer applies and the "Red Line" shall be removed.
3. Check the clearance of the air brake sheets per the SB and if necessary, modify them.
4. Inspect the Landing Gear doors and area per the SB and if necessary replace damaged parts.

(LBA AD 2000-369 refers)

Compliance:

1. Before further flight.
2. By 16 November 2001.
3. Before further flight.
4. Before further flight.

Effective Date: 16 November 2000

DCA/STEMME/2 Elevator Control Coupling – Inspection

Applicability: Model S10 S/N 10-03 through 10-63, S10-V S/N 14-002 through 14-030, converted aircraft S/N 14-012M through 14-063M, S10-VT S/N 11-001, 11-004 through 11-013 and 11-015.

Requirement: Inspect and replace longitudinal control couplings per Stemme SB A 31-10-032, Amendment-Index 02.

(LBA AD 1998-323/2 refers)

Compliance: Within the next 100 hours TIS, unless already accomplished.

Effective Date: 30 November 2000

DCA/STEMME/3 Variable Pitch Propeller - Modification

Applicability: Model S10-V S/N 14-001 thru 14-030 and 14-012M thru 14-063M.
Model S10-VT, S/N 11-001 thru 11-037.

Requirement: To prevent loss of a propeller blade in flight, modify the propeller to include new design forks P/N 10AP-V88 per Stemme SB No A 31-10-051.

(LBA AD 199-224/5 refers)

Compliance: Before further flight

Effective Date: 27 March 2003

DCA/STEMME/4 MAN Drive Shafts – Inspection

Applicability: All model S10

Requirement: To prevent failure of the bonded joint between the CFRP shaft and the metal flanges at each end of the driveshaft, remove the driveshaft per Stemme SB No A31-10-058 and return to Stemme factory, for inspection.

(LBA AD 2002-113 refers)

Compliance: By 28 May 2003 if not already accomplished.

Effective Date: 27 March 2003

DCA/STEMME/5 Enhanced Fire Proofing - Modification

Applicability: Model S10-VT, S/N 11-002 thru 11-072.

Requirement: To increase the aircraft's protection against in-flight fire, modify the engine compartment and fuel lines per Stemme SB No A31-10-057 and No A31-10-061.

(LBA AD 2002-156 refers)

Compliance: Within 100 hours TIS

Effective Date: 27 March 2003

DCA/STEMME/6 Lower Drive Cog – Replacement

Applicability: All Model S10-VT, with gearbox S/N 43YYQ001 thru 43YYQ088. (YY is last two digits of year, Q is quarter number)

Requirement: To prevent failure of the lower drive cog, loss of power and possible damage to the aircraft, accomplish the following:

1. Limit operation of the engine to 100% (max continuous power). Takeoffs at 115% are prohibited, use alternative flight manual procedure. Place the following placard in clear view of the pilot.

| |
|--------------------------|
| Do not exceed 100% Power |
|--------------------------|

2. Replace lower cog per Stemme SB A31-10-65 Amendment 02.a. Replacement is terminating action for this AD and removes the limitation and placards required by Part 1.

(LBA AD 2002-389/2 refers)

- Compliance:**
1. Before further flight.
 2. By 31 December 2003.

Effective Date: 27 March 2003

DCA/STEMME/7 Fuel Pressure Sensor Lines – Inspection

Applicability: Model S10-VT S/N 11-089 thru 11-096 and

all S/Ns where the pressure lines have been replaced during the period 27 July 2004 and 22 June 2005 and the parts were provided by Stemme AG.

Requirement: To detect ripped pressure lines between the air box, carburettor and differential fuel pressure sensor which could affect engine power in the range between maximum continuous power and take off power, accomplish the following:

1. Inspect all pressure lines for porosity or cracks per Stemme SB A31-10-073. If cracks or porosity is found, replace all pressure lines before further flight, per SB A31-10-073.

2. Replace all 4mm x 7mm pressure lines with Rotax P/N 860 660 or Stemme P/N HZ-KLS041 pressure lines, per SB A31-10-073.

(LBA AD D-2005-228 refers)

- Compliance:**
1. Before further flight.
 2. Within the next 20 hours TIS or by 31 December 2005 whichever is the sooner.

Effective Date: 30 June 2005

DCA/STEMME/8 Exhaust System - Inspection

Applicability: Model S10-VT aircraft, S/N 11-001 through 11-103.

Requirement: To prevent CO2 leaking into the cockpit due to the possibility of a cracked exhaust system, inspect the exhaust bends near the cylinder flange of each cylinder, per Stemme Service Bulletin No. A31-10-075 revision 01, or later approved revisions.

Accomplish the corrective actions per SB No. A31-10-075, before further flight.

(EASA AD 2006-0217-E refers)

Compliance: Within the next 10 hours TIS.

Effective Date: 27 July 2006

DCA/STEMME/9 Flight Control System Bearings – Inspection

Applicability: Model S10 aircraft, S/Ns 10-03 through 10-56.

Model S10-V aircraft, S/Ns 14-001 through 14-030 and all converted versions 14-003M through 14-056M.

Model S10-VT aircraft, S/Ns 11-001 through 11-089.

Requirement: To detect and correct loose bearings in the aircraft control system which could become completely disengaged and result in loss of aircraft control, accomplish the following:

1. Inspect the joint between the aileron control rod P/N 10SQ-RMB and the connecting shaft P/N 10SQ-RMW, per Stemme Service Bulletin No. A31-10-069 amendment 01.a.

If the bearing is loose, accomplish the corrective actions per SB No. A31-10-069, before further flight.

2. Inspect all the control system joints which have circular caulked hinges or ball bearings and the aileron system for the installation of a safety washer, per SB No. A31-10-069.

Accomplish corrective actions per SB No. A31-10-069, before further flight.

- Compliance:**
1. At every daily pre-flight inspection until the accomplishment of requirement 2.
 2. Within the next 100 hours TIS, unless already accomplished, or by 31 December 2006, whichever is the sooner.

(LBA AD D-2004-443 refers)

Effective Date: 28 September 2006

DCA/STEMME/10 Engine Wastegate Control and Oil Lines – Inspection

Applicability: Model S 10-VT aircraft, S/Ns 11-004 through 11-006 and 11-008 through 11-013.

Requirement: To detect and correct malfunction of the wastegate control due to the possibility of heat damage to the wastegate control cable and damage to the turbocharger pressure oil lines and mountings, inspect per Stemme Service Bulletin No. A 31-10-034, amendment 01.a.

Replace the wastegate control cable with a modified cable with a reinforced outer cover for increased heat resistance, per SB No. A 31-10-034.

Inspect and replace the turbocharger oil pressure lines and mountings as required, per SB No. A 31-10-034.

(LBA AD D-1998-400 refers)

Compliance: Within the next 100 hours TIS, unless already accomplished, or by 31 December 2006, whichever is the sooner.

Effective Date: 28 September 2006

DCA/STEMME/11 Flap System Drive Rocker – Inspection

Applicability: All model S 10 aircraft, S/Ns 10-03 through 10-26 and converted aircraft, S/Ns 14-012M through 14-026M.

Requirement: To prevent fatigue failure of the flap drive rocker replace flap drive rocker P/N 10SW-RMW per Stemme Service Bulletin No. A 31-10-017, amendment 02.a.

(LBA AD D-1998-324 refers)

Compliance: Within the next 100 hours TIS, unless already accomplished, or by 31 May 2007 whichever is the sooner.

Effective Date: 28 September 2006

DCA/STEMME/12 Fuel Line Connectors – Inspection

Applicability: Model S10 aircraft, S/Ns 10-03 through 10-56.

Model S10-V aircraft, S/Ns 14-001 through 14-030 and all converted model S10-V aircraft, S/Ns 14-003M through 14-056M.

Model S10-VT aircraft, S/Ns 11-001 through 11-100.

Requirement: To prevent fuel leakage due to the fuel line connectors being susceptible to improper assembly, accomplish the following:

Inspect both ends of the wing to fuselage fuel line and identify which brass connectors are fitted. Accomplish this inspection per Stemme Service Bulletin (SB) No. A31-10-077 amendment-index 01.a.

Replace fuel line connectors identified as design modification index 01.a. with connectors having design modification index 02.a. per SB No. A31-10-077, before further flight.

(EASA AD 2006-0310-E refers)

Compliance: Before further flight.

Effective Date: 18 October 2006

DCA/STEMME/13 Evans NPG+ Coolant and Cylinder Head Temperature – Inspection and AFM Amendment

Applicability: Model S10-VT aircraft, S/Ns 11-001 through 11-104 with a liquid cooling system filled with Evans NPG+ coolant, per Rotax SB 914-029.

Requirement: The liquid cooling system of the Stemme S10-VT is not designed to be filled with flammable liquid without prior modification. For this reason the Evans NPG+ coolant must be replaced and the operating temperature limitation of the cylinder heads reduced.

Replace the Evans NPG+ cooling liquid per the instructions in Stemme Service Bulletin (SB) No. A31-10-076 amendment-index 01.a.

Amend the cylinder head temperature operation limitation in the AFM to a temporary operating limit of 120°C / 248°F. This may be accomplished by inserting a copy of this AD into the AFM. The affected pages in the AFM are 2-3, 2-6 and 4-12.

Modify the cylinder head temperature gauge for both the LH and RH cylinder head temperatures by applying a red line at the 120°C / 248°F mark, per the instructions in Rotax Aircraft Engines SB 914-029 revision 1.

(EASA AD 2006-0311-E refers)

Compliance: Before further flight.

Effective Date: 18 October 2006

DCA/STEMME/14 Propeller Blade Follower Type 10AP-VM – Inspection and AFM Amendment

Applicability: Model S 10-V and S 10-VT aircraft fitted with model 10AP-F propellers, S/Ns 40001 through 40010, and model 10AP-V propellers, S/Ns 10661 and 20001 through 20051 (except 20038 and 20043), and model 11AP-V propellers, S/Ns 30001 through 30111 (except 30059 and 30027).

Requirement: To prevent failure of the attachment screw of the propeller blade follower type 10AP-VM causing loss of the main part of the blade follower in flight and lead to high vibration and affect aircraft control, accomplish the following:

1. Amend the Aircraft Flight Manual (AFM) to include the following warning:

Attention – If the main part of the propeller blade follower is lost in flight

- Reduce the engine power setting to lessen the vibration level.
- Land the aircraft at an airfield as soon as possible.

Note 1: Requirement 1 may be accomplished by inserting a copy of this AD into the AFM.

2. Replace blade follower type 10AP-VM with new type 10AP-VP, per the instructions in Stemme Service Bulletin A31-10-078.

Note 2: Once requirement 2 has been accomplished, the warning may be removed from the AFM.

(EASA AD 2006-0373R1-E refers)

Note 3: Propeller types 10AP-F, 10A-PV or 11AP-V may not be installed on any aircraft unless the propeller has the new type 10AP-VP blade follower fitted, per the instructions in Stemme Service Bulletin A31-10-078.

Compliance: 1. Before further flight, unless already accomplished.

2. Within the next 25 hours TIS or by 16 April 2007, whichever is the sooner.

Effective Date: 21 December 2006

DCA/STEMME/15 Differential Fuel Pressure Sensor – Inspection

Applicability: Model S10-VT aircraft, all S/N fitted with a fuel pressure sensor P/N 11AB-K01.

Requirement: To prevent fuel from the differential fuel pressure sensor leaking through the air pressure line into the airbox and possibly resulting in the fuel escaping through the drainage tubes into the engine compartment, accomplish the following:

1. Amend the aircraft flight manual per the instructions in action 2 of Stemme SB A31-010-081 and inspect the differential fuel pressure sensor per the instructions in the amended AFM.

If any fuel leaks are detected, repair any damage found and replace differential fuel pressure sensor P/N 11AB-K01 with a fuel pressure sensor P/N 11AB-KD per the instructions in SB A31-010-081, before further flight.

Note: Sign log book for compliance of requirement 1 at time of amending the AFM.

2. Replace differential fuel pressure sensor P/N 11AB-K01 with a fuel pressure sensor P/N 11AB-KD per the instructions in SB A31-010-081. After installation of a differential fuel pressure sensor P/N 11AB-KD, remove the AFM amendment introduced by requirement 1 of this AD.

3. Differential fuel pressure sensors P/N 11AB-K01 held as spares shall not be fitted to any aircraft as a replacement part.

(EASA AD 2007-0191-E refers)

Compliance: 1. Amend the AFM before further flight, and thereafter inspect the differential fuel pressure sensor per the instruction in the amended AFM at every daily inspection until replaced with a fuel pressure sensor P/N 11AB-KD.

2. Within the next 100 hours TIS or annual inspection or by 30 September 2007 whichever is the sooner.

3. From the effective date of this AD.

Effective Date: 18 July 2007

DCA/STEMME/16 Cancelled – DCA/STEMME/17 refers

Effective Date: 14 March 2008

DCA/STEMME/17 Fuel System Connectors – Inspection

Applicability: Model S10-VT aircraft, S/N 11-001 through to 11-112.

Note 1: Since the release of DCA/STEMME/16 another fuel leak has been reported on a S10-VT aircraft on which the requirements of SB No. A31-10-082 had been implemented. This AD supersedes DCA/STEMME/16 and mandates the requirements in Stemme SB No. A31-10-083.

Requirement: To prevent failure of plastic fuel system connectors possibly causing fuel leaks which could result in an engine fire, accomplish the following:

1. For aircraft modified in accordance with SB A31-10-082:

- 1.1 Inspect the aircraft fuel system for leaks per instructions 1.2 in paragraph 5 of Stemme Service Bulletin No. A31-10-083.

If any leaks are found, repair in accordance with a manufacturer approved repair scheme and replace the single-ear clamps P/N M476 with clamps P/N 10M-181 per instructions 3.2 in paragraph 5 of SB No. A31-10-083 before further flight.

- 1.2 Replace the single-ear clamps P/N M476 with new clamps P/N 10M-181 per instructions 3.2 in paragraph 5 of SB No. A31-10-083.

2. For aircraft not modified in accordance with SB A31-10-082:

2.1 Inspect all plastic connectors at the fuel pumps and the fuel shut-off valve (behind the rear bulkhead of the front fuselage) for fuel leaks per instructions 1.1 of paragraph 5 of SB No. A31-10-083.

If any leaks are found, repair in accordance with a manufacturer approved repair scheme and replace the single-ear clamps P/N M476 with new clamps P/N 10M-181 per instructions 3.2 in paragraph 5 of SB No. A31-10-083 before further flight.

2.2 Replace all plastic "T" and "Y" shape fuel connectors with new metal connectors per instructions 3.1 in paragraph 5 of SB No. A31-10-083.

Note 2:

The accomplishment of requirement 2.2 of this AD terminates the repetitive inspections required by requirement 2.1.

2.3 Replace the single-ear clamps P/N M476 with new clamps P/N 10M-181 per instructions 3.2 in paragraph 5 of SB No. A31-10-083.

3. For all aircraft:

Plastic "T" and "Y" shaped fuel connectors and single-ear clamps P/N M476 shall not be fitted to any aircraft.

(EASA AD 2008-0053-E refers)

Compliance:

1.1 Before further flight.

1.2 At the next scheduled maintenance inspection or by 14 March 2009, whichever occurs sooner.

2.1 Before the first flight of every day until requirement 2.2 is accomplished.

2.2 At the next scheduled maintenance inspection or by 14 April 2008, whichever occurs sooner.

2.3 At the next scheduled maintenance inspection or by 14 March 2009, whichever occurs sooner.

3. From the effective date of this AD.

Effective Date: 14 March 2008

DCA/STEMME/18 Fuel Lines – Inspection

Applicability: Model S10 and S10-V powered aircraft, S/N 10-32, 10-53, 14-025 and 14-027.

Requirement: To prevent failure of fuel lines which could result in fuel leaks, accomplish the following:

1. Inspect the fuel lines per Stemme SB No. A31-10-084 initial issue or later approved revisions. If any damage is found replace all the fuel lines per SB No. A31-10-084 before further flight.

2. Replace all the fuel lines per SB No. A31-10-084.

(EASA AD 2008-0186-E refers)

Compliance:

1. Before further flight.

2. By 30 November 2008.

Effective Date: 30 October 2008

DCA/STEMME/19 Fuel, Oil and Cooling System Hoses – Inspection

Applicability: Model S10, S10-V and S10-VT powered gliders, all S/N

Requirement: To prevent fuel, oil or cooling system hose failure, accomplish the requirements in EASA AD 2012-0154.

Note 1: A copy of EASA AD 2012-0154 can be obtained from the EASA AD web site at <http://www.easa.eu.int/certification/airworthiness-directives.php>

Note 2: Stemme GmbH SB A31-10-093 at issue 1, dated 15 June 2012 or later approved revisions are acceptable for compliance with the requirements of this AD.
(EASA AD 2012-0154 refers)

Compliance: At the compliance time specified in EASA AD 2012-0154.

Effective Date: 31 August 2012

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* [2017-0072-E](#) Front Gearbox – Inspection

Effective Date: 28 April 2017