EASA AD No.: 2015-0013

EASA

AIRWORTHINESS DIRECTIVE

AD No.: 2015-0013

Date: 30 January 2015

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EU 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EU 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

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Design Change Approval Holder's Name:		Modification:
ZODIAC AEROSAFETY SYSTEMS		Internal Auxiliary Fuel Tank System
Approval Number:	EASA Supplemental Type Certificate (STC) n° 10017156 (formerly EASA.R.S.01263)	
Foreign AD:	Not applicable	
Supersedure:	None	
ATA 28	Fuel – Internal Auxiliary Fuel System – Modification	
Manufacturer(s):	Zodiac Aerosafety Systems (formerly Aerazur), for the Internal Auxiliary Fuel Tank System (IAFS). Sikorsky Aircraft Corporation, for the STC-modified S-92A helicopters.	
Applicability:	S-92A helicopters, if equipped with a Zodiac Aerosafety System (ASY) IAFS forward auxiliary fuel tank, Part Number (P/N) 508687 series.	
Reason:	In 2008, occurrences were reported of damage to main fuel tanks of S-92A helicopters, caused by over-pressurization of fuel cells during pressure refuelling. Investigation showed that the fuel vent valves of the tanks were sensitive to transient airflow, motion or vibration causing them to close prematurely. These reports prompted Sikorsky to issue Safety Advisory SSA-S92-08-004, providing recommendations to operators to avoid pressure refuelling in high wind conditions or with rotors turning. EASA issued Safety Information Bulletin (SIB) 2008-43 to draw operators' attention to the SSA.	
	Subsequently, Sikorsky issued Alert Service Bulletin (ASB) 92-28-003 to provide instructions for replacement of the affected fuel vent valves with new parts of modified design.	
	ASY IAFS forward tanks P/N 508687 (series) are equipped with the same fuel vent valves, identified by ASY P/N 508673. Consequently, the same kind of damage by over-pressurization of the IAFS fuel cell could be observed during pressure refuelling with rotor turning.	
	This condition, if not detected and corrected, could lead to the failure of the fuel tank inside the helicopter cabin, possibly causing injury to occupants and/or initiating a fire.	

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To address this potential unsafe condition, ASY has designed new fuel vent valve P/N 511474, which is now installed on IAFS forward tanks in production. ASY issued Service Bulletin (SB) n° 508687-28-002 to provide instructions for installation of this new valve on IAFS forward auxiliary tank installations in service. For the reasons described above, this AD requires replacement of fuel vent valve P/N 508673 with new fuel vent valve P/N 511474. This AD also requires. pending fuel vent valves replacement, a temporary amendment of the applicable Rotorcraft Flight Manual Supplement (RFMS) to prohibit pressure refuelling of the ASY IAFS fuel tanks with helicopter rotors turning, and the installation of a temporary limitation placard on the IAFS Fuel Management Panel (FMP). 13 February 2015 Effective Date: Required Action(s) Required as indicated, unless accomplished previously: and Compliance (1) Within 30 days after the effective date of this AD, for S-92A helicopters with Time(s): an ASY IAFS forward auxiliary fuel tank, identified by serial number (s/n) as listed in Table 1 of this AD, amend the applicable RFMS n° 060S427 by inserting the temporary limitation pages, in accordance with the instructions of ASY SB n° 508687-28-002 (Annex B of the SB), inform all flight crews and, thereafter, operate the helicopter accordingly. Table 1 – Affected Forward Auxiliary Fuel Tanks P/N 508687 (series) s/n 5 to 18 inclusive s/n 100, 101 and 103 s/n 107 to 128 inclusive s/n 130, 131 and 132 (2) Concurrent with the RFMS amendment as required by paragraph (1) of this AD, install a limitation placard on the IAFS FMP in accordance with the instructions of ASY SB n° 508687-28-002 (Annex A of the SB). (3) Within 12 months after the effective date of this AD, replace the two fuel vent valves P/N 508673 of IAFS forward auxiliary fuel tank P/N 508687, identified by s/n as listed in Table 1 of this AD, with new fuel vent valves P/N 511474 in accordance with the instructions of ASY SB n° 508687-28-002. (4) After modification of a helicopter as required by paragraph (3) of this AD. the temporary RFMS limitation pages and the FMP limitation placard, as required by paragraphs (1) and (2) of this AD, respectively, may be removed from that helicopter. (5) From the effective date of this AD, do not install a fuel vent valve P/N 508673 on any ASY IAFS forward auxiliary fuel tank P/N 508687 (series). Ref. Publications: Zodiac Aerosafety Systems SB n° 508687-28-002 original issue, dated 07 January 2015. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD. Remarks: If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. This AD was posted on 05 November 2014 as PAD 14-162 for consultation until 19 November 2014. The Comment Response Document can be found at http://ad.easa.europa.eu/.

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- 3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.
- For any question concerning the technical content of the requirements in this AD, please contact: Zodiac Aerosafety Systems,
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