

**SUBJECT: EASA AD 2013-0020R3 - SAFETY BELT AND TORSO RESTRAINT SYSTEM  
MAINTENANCE**

Date: Jul 28/14

To all Customers, Operators and Service Centers:

Applicability: All PC-12 Series Aircraft

This Service Letter is issued to draw attention to the following EASA Airworthiness Directive:

**EASA AD 2013-0020R3**

As a result of an investigation on some maintenance organisations, EASA have been made aware that safety belts and torso restraint systems manufactured by design approval holders have been maintained or repaired by maintenance organisations without holding approved maintenance data. In particular, affected restraint systems have been refurbished using webbing materials that have significantly different mechanical properties to those used to manufacture the original restraint systems.

Pilatus recommends that operators of PC-12 aircraft comply with EASA AD 2013-0020R3.

Operators who require further information should contact their Customer Liaison Manager at one of the following addresses given below:


PILATUS AIRCRAFT LTD.  
CUSTOMER SUPPORT MANAGER  
CH-6371 STANS  
SWITZERLAND  
General Aviation  
Tel: +41 41 619 3333  
Fax: +41 41 619 7311  
eMail: SupportPC12@pilatus-aircraft.com

PILATUS BUSINESS AIRCRAFT LTD.  
PRODUCT SUPPORT DEPARTMENT  
11755 AIRPORT WAY  
BROOMFIELD, CO 80021  
UNITED STATES OF AMERICA  
Tel: +1 303 465 9099  
Fax: +1 303 465 6040  
eMail: Productsupport@PilBal.com

PILATUS AUSTRALIA PTY LTD.  
17 JAMES SCHOFIELD DRIVE  
ADELAIDE AIRPORT SA 5950  
AUSTRALIA  
Tel: +61 8 8238 1600  
Fax: +61 8 8234 4499  
Free Call: +61 1800 PILATUS (745 2887)  
eMail: supportpc12@pilatus.com.au

**Attachments:** EASA AD 2013-0020R3

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<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>
	<p><b>AD No.: 2013-0020R3</b></p> <p><b>Date: 21 March 2014</b></p> <p>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.</p>
<p>This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption]</p>	
<p><b>Design Approval Holder's Names :</b></p> <p>AmSafe Anjou Aeronautique Davis Aircraft Products Co. Schroth Safety Products GmbH Pacific Scientific</p>	<p><b>Type/Model designation(s) :</b></p> <p>Safety Belts / Torso Restraint Systems</p>
(E)TSOA Number : Various	
Foreign AD :	Not applicable
Revision:	This AD revises EASA AD 2013-0020R2 dated 11 July 2013
<b>ATA 25</b>	<b>Equipment &amp; Furnishings – Safety Belts / Torso Restraint Systems – Inspection / Replacement</b>
Manufacturer(s):	<p>AmSafe; Anjou Aeronautique (formerly TRW Repa S.A., formerly L'Aiglon); Davis Aircraft Products Co.; Schroth Safety Products GmbH; Pacific Scientific.</p>
Applicability:	<p>All part numbers of safety belts and torso restraint systems installed on any aircraft where dynamically tested seats are required in accordance with airworthiness requirements like the European Certification Specifications (CS), or JAR/FAR, paragraphs 23.562, 25.562, 27.562 and 29.562, if safety belts and torso restraint systems have been maintained or repaired after 28 September 2003 by maintenance organizations not holding the applicable maintenance data of the relevant approval holders, unless they are marked with European Parts Approval (EPA).</p> <p>The affected safety belts and torso restraint systems may be installed on, but not limited to, the aircraft listed in Appendix 1 of this AD.</p> <p>Note: This AD is applicable to safety belts and torso restraint systems, whose Component Maintenance Manuals (CMM) explicitly prohibit webbing replacement, unless this is accomplished by the design approval holder or by a repair station/maintenance organization authorized by the design approval holder.</p>

Reason:	<p>As a result of an investigation on some maintenance organisations, EASA was made aware that safety belts and torso restraint systems manufactured by design approval holders have been maintained or repaired by maintenance organisations without holding approved maintenance data.</p> <p>In particular, the affected restraint systems have been refurbished using webbing materials having mechanical properties significantly different with respect to the materials used to manufacture the original restraint systems (e.g. nylon instead of polyester).</p> <p>Based on tests performed in the frame of an EASA approved STC (refurbishment of seat belts on dynamically tested seats in compliance with CS 25.562) and during a research project on safety belt performance launched by EASA, evidence was gained that different elongation properties of commonly available restraint systems webbing may reduce the energy absorption capability of the seat-restraint system and increase the risk of head injury to the occupant under dynamic crash landing conditions.</p> <p>Maintenance or repair of safety belts and torso restraint systems, if not assessed and justified in accordance with the dynamic test criteria, could therefore result in non-compliance with the applicable certification requirements for emergency landing dynamic conditions.</p> <p>As a consequence, safety belts and torso restraint system could fail to perform their intended function to protect each occupant during an emergency landing condition and to minimise the effects of survivable accidents.</p> <p>For the reasons described above, this AD requires to inspect safety belts and/or torso restraint systems installed on any aircraft (refer to Appendix 1 of this AD) to verify if they have been maintained or repaired by the design approval holder or by a repair station/maintenance organization authorized by the design approval holder, and to replace the affected safety belts and torso restraint systems with serviceable parts.</p> <p>Revision 1 of this AD was issued to clarify the Applicability of the AD and make some corrections to Appendix 1, as well as to correct a typographical error in the AmSafe Repair Station Reference Document number, which should be No. E512615 Rev. A, instead of E512165.</p> <p>In addition, the documents referenced in the “Ref. Publications” section of this AD were added in the compressed (zipped) file attached to the record of this AD at <a href="http://ad.easa.europa.eu">http://ad.easa.europa.eu</a>.</p> <p>This AD revision 2 is issued to introduce an explanatory note in the AD “Required Actions and Compliance Time” section, and to amend type and model designation and add a recently approved model of one aircraft type in the Appendix 1.</p> <p>This AD revision 3 is issued to update AmSafe and Schroth reference publications.</p>
Effective Date:	<p>Revision 3: 28 March 2014</p> <p>Revision 2: 11 July 2013</p> <p>Revision 1: 12 March 2013</p> <p>Original issue: 14 February 2013</p>
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless previously accomplished:</p> <p>(1) Within 6 months after 14 February 2013 [the effective date of the original issue of this AD], inspect the markings of safety belts and/or torso restraint systems, to determine if they have been maintained or repaired by organisations other than the design approval holder. A review of the applicable maintenance records is acceptable to identify the safety belts and/or torso restraint systems as specified in this paragraph, provided those records can be relied upon for that purpose, and the affected safety belts and/or torso restraint systems can be conclusively identified from</p>

	<p>that review.</p> <p>(2) If safety belts and torso restraint systems have been maintained or repaired by an organisation other than the design approval holder, within 1 month after the inspection required by paragraph (1) of this AD, verify if the organisation is listed among the authorized maintenance or repair organisation reference documents quoted in the Ref. Publications section of this AD, or alternatively contact the design approval holder of the safety belts and torso restraint systems for confirmation that the maintenance or repair organisation had been authorised by them.</p> <p>(3) If the safety belts and/or torso restraint systems have been maintained or repaired by a repair station/maintenance organization not authorized by the design approval holder, within 18 months after the inspection required by paragraph (1) of this AD, remove the safety belts and/or torso restraint systems and replace them with serviceable parts, or make the relevant seat inoperative.</p> <p>Note 1: For the purpose of this AD, serviceable parts are new parts or parts which have been maintained or repaired by the design approval holder or by a repair station/maintenance organization authorized by the design approval holder or parts marked with EPA.</p> <p>Note 2: The requirements of paragraphs (1), (2) and (3) of this AD do not affect safety belts and/or torso restraint systems sub-assemblies whose replacement or any other action (e.g. cleaning) is accomplished in accordance with the applicable safety belts and/or torso restraint systems CMM.</p> <p>(4) After 14 February 2013 [the effective date of the original issue of this AD], do not install safety belts or torso restraint systems on any aircraft, unless inspected and corrected in compliance with the requirements of this AD.</p>
Ref. Publications:	<p>AmSafe Repair Station Reference Document N. E512615 Rev. B , dated 16 September 2013.</p> <p>Anjou Aeronautique – 11, Rue Marbeuf 75008 Paris - France and ROMTEX ANJOU AERONAUTIQUE, Romanian CAA authorisation N. RO.145.035.</p> <p>Davis Aircraft Products Co., Inc. FAA approved repair station # D5PR729J and Davis Restraint Systems FAA approved repair station # GK3R530L.</p> <p>Pacific Scientific Service Information Letter (SIL) No. 25-0303A dated 13 November 2012.</p> <p>Schroth Service Information Letter SIL SSP-006 Revision C dated 15 January 2014.</p>
Remarks:	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. The original issue of this AD was posted on 27 November 2012 as PAD 12-151 for consultation until 27 December 2012. The Comment Response Document can be found at <a href="http://ad.easa.europa.eu">http://ad.easa.europa.eu</a>.</li> <li>3. Enquiries regarding this AD should be referred to Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>4. For any question concerning the technical content of the requirements in this AD, please contact: <ul style="list-style-type: none"> <li>AmSafe Aviation, 1043 N. 47th Avenue, Phoenix, Arizona 85043, U.S.A Telephone: +1 602 850 2850; Fax: +1 602 850 2812 ;</li> <li>Anjou Aeronautique, 11, rue Marbeuf, 75008 Paris - France Telephone: +40 269 243 918; Fax: +33 (0) 2 41 42 15 77 or +40 269 243 921;</li> <li>Davis Aircraft Products Co Inc.,</li> </ul> </li> </ol>

	<p>1150 Walnut Avenue, Bohemia, New York 11716, U.S.A.; Telephone +1 631-563-1500 ; Fax +1 631-563-1117;</p> <p>Pacific Scientific Aviation Services, 11700 N.W. 102nd Rd. #6, Miami, Florida 33178, U.S.A.; Telephone: +1 305 477 4711 ; Fax +1 305 477 9799;</p> <p>Schroth Safety Products GmbH, Im Ohl 14, D-59757 Arnsberg, Germany; Telephone +49 (0) 29 32-97 42 0 ; Fax +49 (0) 29 32-97 42 42.</p>
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## APPENDIX 1

## General Aviation

TC HOLDER	TYPE	MODEL
Aero Vodochody a.s.	Ae 270	Ae 270
Aviatech Technical Services	OMF-100	OMF-100-160
Costruzioni Aeronautiche TECNAM S.r.l	P2006	P2006T
Diamond Aircraft Industries GmbH	DA 40	DA 40, 40D, 40F, 40NG
	DA 42	DA 42, 42M, 42M-NG, 42M NG
	DA-42 (Restricted)	DA 42 M (R), M-NG ®
Extra Flugzeugproduktions- und Vertriebs GmbH	EA 400	EA 400, 400-500
Gomolzig Flugzeug- und Maschinenbau GmbH	R 90-230RG	R 90-230RG
Grob Aircraft AG	G 120	G 120A , 120A-I
Instytut Lotnictwa	I-23	I-23
OMA SUD Sky Technologies S.p.A.	SKYCAR	SKYCAR
Pilatus Aircraft Ltd	PC-12	PC-12, -12/45, -12/47
SOCATA	TBM 700	TBM 700 C2 and N variants
XtremeAir GmbH	XA42	XA41, XA42
ZAKŁADY LOTNICZE Margański & Mysłowski Sp. z o.o.	EM-11C ORKA	EM-11C ORKA
ZLIN Aircraft a.s.	Z 143	Z 143 L, 143 Lsi
	Z 242	Z 242 L
Hoffmann	H 40	H 40
Cessna Aircraft Company	172 (Skyhawk)	172R , 172S
	182 (Skylane)	182S , 182T, T182T
	206H (Stationair)	206H, T206H
	208 (Caravan I)	208, 208B
	510 (Mustang)	510
	525 (CitationJet)	525, 525A, 525B, 525C
	LC40-550FG	LC40-550FG
	LC Series	LC41-550FG, LC42-550FG
Cirrus Design Corporation	SR20/22	SR20, SR22, SR22T
Eclipse Aerospace Incorporated	EA500	EA500
Empresa Brasileira de Aeronáutica SA	EMB-500 (Phenom 100)	EMB-500
	EMB-505 (Phenom 300)	EMB-505
GA8 Airvan Pty Ltd	GA8	GA8, GA8-TC 320
Hawker Beechcraft Corporation	390	390 (Premier I, Premier IA)
Liberty Aerospace Incorporated	XL-2	XL-2 Yes for s/n 0007 and 0009 through 0125 that have not been modified per Liberty gross weight increase kit RKI-SIL-08-001
Pacific Aerospace Ltd.	750XL	750XL

## APPENDIX 1 - continued

## Large Aeroplanes

TC HOLDER	TYPE	MODEL
328 Support Services	Dornier 328	
Airbus	A318	
	A330	
	A340	
	A380	
Alenia Aeronautica	C-27J	
Antonov	AN124-100	
	AN-26	
BAE Systems (Operations) Ltd	Jetstream 4100 Series	
Boeing	737 NG	737-600 and -700 (146-149 PAX), 737-800 and -900 (181-189 PAX) and -900ER
	747	747-8
	767	767-400ER
	777	
	787	
Bombardier	BD-100	
	BD-700	
	CL-600	
	DHC-8 Series	DHC-8-400 Series
Cessna	Cessna 560 XL, Variant XLS+	
	Cessna 680	
	Cessna 750	
Dassault Aviation	Falcon 2000, 2000EX	
	Falcon 7X	
Embraer	EMB-135/-145	
	ERJ-170	
	ERJ-190	
Fokker Services B.V.	Fokker F28 series	F28 Mark 0070
Gulfstream Aerospace Corporation	G-159 (GI), G-1159 (GII), G-1159B (GIIB), G-1159A (GIIB), GIV, GIV-X, GV, GV-SP and GVI	
Gulfstream Aerospace LP	G150	
	G200/Galaxy	
Hawker Beechcraft Corporation	Hawker 4000	
Learjet	Learjet 45	
SAAB AB	Saab 2000	
Sukhoi	Sukhoi RRJ-95	



## APPENDIX 1 - continued

**Rotorcraft**

<b>TC HOLDER</b>	<b>TYPE</b>	<b>MODEL</b>
Bell Helicopter Textron Canada Ltd	427	
	429	
Eurocopter	EC 120 B	
	EC 130 T2	
	EC225LP	Potentially affected for new cabin layouts.
Eurocopter Deutschland	MBB-BK117 C-2	
	EC135	
AgustaWestland	AB139, AW139	
	A109S, A109SP	Potentially affected: Compliant Seat kits have been installed
Sikorsky	S-92A	
Guimbal	Cabri G2	
PZL	SW-4	
MD Helicopters Inc.	MD900	

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