EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	AD No : 2007-0176-E **Date: 22 June 2007**

No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.

Type Approval Holder's Name :	**Type/Model designation(s) :**
DG Flugzeugbau GmbH	DG-500 series Sailplanes and Powered Sailplanes

TCDS Number: Germany No.348 and 843

Foreign AD: Not applicable

Supersedure: Not applicable

ATA 27	**Flight Controls – Bellcrank Bearing Attachment Bolt – Inspection / Re-Torque / Replacement [Life Limitation]**
Manufacturer(s):	DG Flugzeugbau GmbH; Glaser-Dirks Flugzeugbau GmbH; ELAN Flight Ltd (Slovenia); ELAN Line d.o.o. (Slovenia); AMS-Flight d.o.o. (Slovenia)
Applicability:	**Sailplanes:** DG-500/20 ELAN, all serial numbers; DG-500/22 ELAN, all serial numbers; DG-500 ELAN ORION, all serial numbers; and DG-500 ELAN TRAINER, all serial numbers. **Powered Sailplanes:** DG-500M, all serial numbers; and DG-500MB, all serial numbers.
Reason:	During a recent flight with a DG-500 ELAN Trainer, the bolt of bearing stand 5RU61, which is the pivot for bell crank 5St19, failed in-flight, leading to loss of control of the aircraft. Although the occupants managed to exit the aircraft safely, the aircraft crashed and was damaged beyond repair. While the investigation continues, the most likely cause is suspected to be insufficient tightening of the nut on the bolt of bearing stand 5RU61. This condition, if not corrected, may cause excessive bending loads, leading to premature failure of the bolt and loss of control of the aircraft. As a precautionary measure, for the reasons described above, this Emergency

	Airworthiness Directive (EAD) requires a check of the torque on the affected nut, immediate replacement of any bolts where the torque is found to be insufficient and introduces a life limit for the affected bolts. Any bolts that have already exceeded this limit in service must be replaced, as indicated.
Effective Date:	26 June 2007
Compliance:	(1) Before next flight after the effective date of this directive and thereafter at intervals not to exceed 12 months, check the actual torque of the nut that attaches bell crank 5St19 to the bolt in accordance with working instruction nr.1 of the referenced DG Flugzeugbau TN, as applicable to type; (a) If the torque is found to be less than 3Nm, before next flight, replace the affected bolt with a serviceable bolt in accordance with working instruction nr.2 of the referenced DG Flugzeugbau TN, as applicable to type; (b) Within 7 days, report any findings of insufficient torque to the TC holder, address indicated in the 'Remarks' section of this directive; (c) If the torque is found to be 3Nm or more, before next flight, increase the torque of the nut to 12 Nm; (2) Unless already replaced as required by paragraph (1)(a) of this directive, upon accumulating 1 000 flight hours time-in-service but not later than 31 December 2007 and thereafter at intervals not to exceed 1 000 flight hours, replace the affected bolt with a serviceable bolt. (3) After installation of an additional bracket in accordance with working instruction nr.3 of the referenced DG Flugzeugbau TN, as applicable to type, the periodical replacement of the bolt is no longer required.
Ref. Publications:	DG Flugzeugbau GmbH Technical Note (TN) 348/19 and 843/26 (same document), dated 19 June 2007, including the related working instructions numbers 1 and 2.
Remarks :	1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOCs) for this AD. 2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification. 3. Enquiries regarding this AD should be referred to the AD Focal Point - Certification Directorate, EASA. E-mail: ADs@easa.europa.eu . 4. For any question concerning the technical content of the requirements in this AD, please contact: DG Flugzeugbau GmbH, Otto-Lilienthal-Weg 2, D-76646 Bruchsal, Germany; telephone (49) 7251 3020140; facsimile (49) 7251 3020149; e-mail dirks@dg-flugzeugbau.de