EASA AIRWORTHINESS DIRECTIVE AD No.: 2008-0224 Date: 16 December 2008 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 EAD is issued in accordance with EC 1702/2003, Part 21A.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]. **Type Approval Holder's Name :** Type/Model designation(s) : DA 40 and DA 40 F aircraft Diamond Aircraft Industries GmbH TCDS Number : EASA.A.022 Foreign AD : Not applicable Supersedure: None Wings – Upper Wing Skin-to-Main Spar Adhesive Joint – **ATA 57 Inspection / Repair** Diamond Aircraft Industries Inc. (Canada) Manufacturer: DA 40 aircraft, serial numbers 40.377, 40.420, 40.422, 40.644 through 40.693, 40.695 through 40.842, 40.844, 40.846 through 40.887, 40.889 through 40.912, 40.915 through 40.917, 40.919 through 40.929, 40.931, 40.932, 40.934 through 40.940, 40.944 through 40.949, 40.951 through 40.953, Applicability: 40.955 through 40.957, 40.961, 40.964 and 40.971 and DA 40 F aircraft, serial numbers 40.FC007 through 40.FC029. A number of wings manufactured by Diamond Aircraft Industries Inc. in Canada have been found to exhibit voids in the adhesive joint between the main spar caps and the upper wing skins. The available information indicates that wings with voids continue to meet the certification design limits, provided the voids are within established criteria. However, to detect any wings that may have voids exceeding these criteria, Diamond has issued Mandatory Service Bulletin MSB-40-060 and MSB-F4-016 (single document) that Reason: describes instructions for inspection of the aircraft that had these wings installed during manufacture. Aircraft that have voids within the inspection criteria may continue to operate without restriction, pending the outcome of ongoing investigations. Aircraft that have voids exceeding the inspection criteria must be repaired. For the reasons described above, this EASA AD requires the inspection of the affected aircraft to measure the voids in the adhesive joint between the main spar caps and the upper wing skin, the reporting of all findings to Diamond

| | Aircraft Industries and the repair of any voids exceeding the criteria as specified in the MSB. |
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| Effective Date: | 30 December 2008 |
| Required Action(s) and Compliance Time(s): | Required as indicated, unless accomplished previously: |
| | (1) Within the next 100 flight hours or 3 months, whichever occurs first after the effective date of this AD, inspect the adhesive joint between the wing main spar caps and the upper wing skin in accordance with the instructions of Diamond Aircraft Industries GmbH MSB-40-060 / MSB- F4-016 dated 20 October 2008. |
| | (2) Within 30 days after the inspection, report the results to Diamond Aircraft Industries in accordance with the instructions of Diamond Aircraft Industries GmbH MSB-40-060 / MSB-F4-016 dated 20 October 2008. |
| | (3) When voids are detected that exceed the criteria as specified in the MSB, before further flight, contact Diamond Aircraft Industries for approved repair instructions and accomplish the repair accordingly. |
| Ref. Publications: | Diamond Aircraft Industries GmbH MSB-40-060 / MSB-F4-016 dated 20 October 2008 (single document). |
| | 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. |
| | 2. This AD was posted on 30 October 2008 as PAD 08-124 for consultation until 27 November 2008. No comments were received during the consultation period. |
| | Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA; E-mail <u>ADs@easa.europa.eu</u>. |
| | For any question concerning the technical content of the requirements in this AD, please contact: Diamond Aircraft Industries GmbH, Austria. Telephone +43 2622 26700; Facsimile +43 2622 26700 1369 E-mail office@diamond-air.at or airworthiness@diamond-air.at |