

**Technical arrangement on
Diamond Aircraft Industries product certification**

between

The General Administration of Civil Aviation of China (CAAC)

and

The European Aviation Safety Agency (EASA)

1. PURPOSE

This Technical Arrangement defines the working relationship between the European Aviation Safety Agency (EASA) and the General Administration of Civil Aviation of China (CAAC) hereafter called the “Authorities”, to facilitate and accomplish the CAAC type validation of the Diamond Aircraft Industries (DAI) aircraft models DA 40 – Series and DA 42 - Series, the Thielert engine and MT propeller installed in these aeroplanes and of subsequent type design changes as well as to define Certificate of Airworthiness for Export and continued airworthiness activities. Production of DA-40 Series aeroplane in Canada based on EASA approved type design is covered in a separate arrangement.

2. OBJECTIVES

This Technical Arrangement is intended to accomplish the following objectives:

- 2.1 To define the working procedures under the respective responsibilities of each Authority:
 - a) for the type validation process; and
 - b) for subsequent post type validation activities.
 - c) for the acceptance of new and used products produced by the manufacturer as mentioned in the CAAC validation data sheet and for which the CAAC has issued the Validation of Type Certificate.
 - d) validation of Supplemental Type Certificates approved by EASA.
 - e) for parts and appliances for these products.

- 2.2 To minimize redundant inspections, tests, demonstration, evaluations, and approvals.

3. SCOPE

This Technical Arrangement covers under the provisions set forth in the following paragraphs:

- a) the Diamond Aircraft Industries (DAI) aircraft models DA 40 – Series and DA 42 - Series,
- b) the Thielert TAE 125 - Series engine
- c) the Mühlbauer MTV-6-Series and MTV-12-Series propeller

4. REQUIREMENTS AND BASIS

The requirement for this Technical Arrangement results from paragraphs 2.1.4 and 2.4.1 of CAAC AP 21-01R1 dated January 2000 (English version), Validation Procedures for Import of Civil Aviation Products and Parts.

5. COMMUNICATION

- 5.1 The Aircraft Airworthiness Certification Department (CAAC-AAD) of CAAC and EASA as Aircraft Certification Authority will be responsible for the administration of this Technical Arrangement.
- 5.2 A project manager will be assigned by each Authority to facilitate the implementation of this Technical Arrangement. All routine communication related to the activities of this Technical Arrangement will formally take place between these two project managers. (See Appendix 1 for contact listing).
- 5.3 The applicant will be the primary source for providing the technical support to CAAC-AAD. When requested, EASA will provide the necessary assistance and support within its regulatory functions, which will be initiated through and coordinated by the designated project managers of the respective Authority.
- 5.4 All communications between CAAC and EASA related to the activities of this Technical Arrangement will be made in the English language.
- 5.5 Unless otherwise specified, EASA shall be copied with all correspondence between the applicant and CAAC related to the activities of this Technical Arrangement in order for EASA to support the applicant and CAAC in the future.

6. TYPE VALIDATION ACTIVITIES

6.1 General

- a) The applicant is responsible for showing and verifying the compliance with the CAAC certification basis and for demonstrating this compliance to both Authorities. Subject to paragraph 6.2(c)(ii), any compliance documents provided to CAAC shall be approved by EASA.
- b) The CAAC type validation of effected products as listed above must be accomplished in respect of all laws and regulation governing both Authorities.

6.2 Certification basis

- a) The certification bases for the aircraft models are the following:
 - i) For EASA:
As defined in Type Certificate Data Sheets (TCDS) at the latest applicable issue, and
 - ii) For CAAC:
The CAAC have accepted the EASA certification basis for the aircraft models, with additional requirements as established by comparison with CCAR 23 R2 and for engine CCAR 33R1 and for propeller CCAR 35. These additional requirements to the EASA certification basis are referred to as “Additional Technical Conditions (ATC)”.
- b) CAAC will notify in writing both EASA and the applicant of any ATC necessary for the CAAC type validation.
- c) EASA will review the ATC to ensure its understanding thereof. As necessary, CAAC will provide EASA in writing with any interpretative material or any data regarding the means of compliance pertaining to those ATC.
 - i) EASA, upon request from CAAC, will initiate the process of finding compliance referred to in paragraph 6.4 once the necessary understanding of the particular CAAC ATC has been acquired.
 - ii) CAAC will perform its own findings of compliance on ATC for which EASA has not acquired sufficient understanding.

6.3 Process of finding compliance

For the CAAC type validation activities, CAAC will define its involvement taking into account paragraph 2.2 of this Technical Arrangement.

6.4 Process of finding compliance to the ATC

Provided that CAAC has not already made findings of compliance with its own ATC according to paragraph 6.2(c)(ii), EASA, upon request, will make the findings of compliance with the ATC on behalf of CAAC. EASA will make the findings of compliance in accordance with the interpretative material and the means of compliance provided by CAAC. In the absence of such interpretative material, EASA will use its own interpretation for the specific ATC.

6.5 Formalisation of the findings of compliance

- a) For the purpose of finding compliance with the CAAC certification basis, CAAC may raise Issue Papers (IP) and Action Items (AI).
- b) An IP is normally opened to document the ATC (one IP per ATC):
 - i) to document any controversial technical issue; and
 - ii) to document differences in interpretative material or the means of compliance.
- c) AI are normally opened to record any non-controversial action to be performed by DAI.
- d) CAAC will notify EASA and the applicant of the status of each IP and AI. CAAC will request the formal EASA position on the IP. All IP and AI must be closed before the issuance of the CAAC type certificate.

6.6 Final statement

At the end of the process EASA will provide, upon request, a formal statement attesting that EASA has found compliance with CAAC certification basis. The CAAC approved type design will be identified in a CAAC TCDS to be produced by the applicant and to be approved by EASA.

7. POST TYPE VALIDATION ACTIVITIES

7.1 Design change approval

- a) Upon request, EASA will verify that design changes affecting the EASA type design which have been introduced after CAAC type validation and embodied on products to be delivered to China, comply with the CAAC certification basis using the Information gained during the type validation activities (see paragraph 6 above). If the change is approved via a Supplemental Type Certificate (STC), it will be validated by CAAC who will notify its approval.
- b) Prior to each product delivery, a formal statement of compliance with the CAAC certification basis will be provided by EASA to CAAC for major design changes. These type design changes will normally be approved by CAAC on the basis of the EASA statement of compliance without technical validation. However, CAAC reserves the right to make a technical validation on those design changes that affect the CAAC Validation Data Sheet and will inform DAI and EASA accordingly. For these changes, CAAC will notify EASA and DAI of their approval.
- c) The statement of compliance in b) above is considered sufficient to cover other changes, which are not considered as significantly affecting the approved type design.

8. AIRWORTHINESS SUPPORT ACTIVITIES

8.1 Individual product deliveries

- a) For each aeroplane to be delivered to China, EASA will issue an individual Certificate of Airworthiness for Export stating that the aeroplane complies with the CAAC approved type design and is in a condition for safe operation.
- b) Each engine, propeller, part and appliance will be delivered to China with an individual EASA Form One, issued in accordance with the POA granted by the National Aviation authority under Commission Regulation (EC) No 1702/2003, stating that the engine, propeller, part and appliance complies with the CAAC approved type design and is in a condition for safe operation, with a note in Block 13 of EASA Form One that the engine, propeller, part and appliance is eligible for Export to China.
- c) An Airplane Flight Manual (AFM) in the English language will be provided for each aircraft to be delivered to China. The AFM will be in accordance to the CAAC approved type design, and will be approved by EASA on behalf of the CAAC-AAD.

8.2 Continued Airworthiness

- a) In accordance with ICAO Annex 8, EASA will promptly inform CAAC-AAD of all mandatory airworthiness modifications, special inspections, special operating limitations or other actions necessary for maintaining the continuing airworthiness of the products.
- b) CAAC will promptly notify EASA and DAI of any unsafe condition associated with the design, manufacturing or maintenance of the products that are in service in China.
- c) EASA will notify CAAC, where appropriate, of any action it deems necessary to correct any unsafe condition. In the type design that may be discovered after the type validation, including any actions in respect of components designed or manufactured by a supplier under contract to DAI.
- d) EASA, upon request, will assist CAAC in establishing procedures deemed necessary by CAAC for maintaining the continuing airworthiness of aircraft models.

9. ENTRY INTO FORCE

This Technical Arrangement shall enter into force at the date of signature by the Authorities.

10. DURATION AND TERMINATION

Either Authority may at any time give written notice to the other Authority of its decision to terminate this Technical Arrangement. This Technical Arrangement shall terminate twelve months following the date of receipt of the notice by the other Authority, unless the said notice of termination has been withdrawn by mutual agreement before the expire of this period.

11. AUTHORITIES

The Authorities agree to the provisions of this Technical Arrangement as indicated by the signature of their duly authorised representatives or executive agents.

Signed inon 2004 on behalf of:

European Aviation Safety Agency (EASA)

**Patrick Goudou
Executive Director**

Signed inon 2004 on behalf of:

**General Administration of Civil Aviation
of China (CAAC)
Aircraft Airworthiness Certification
Department**

**Dr. Wang Zhang
General Director**