

SECTION B
AIRWORTHINESS CERTIFICATION

NEPALESE CIVIL AIRWORTHINESS REQUIREMENTS

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AIRWORTHINESS CERTIFICATION

CHAPTER B.1

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TYPE CERTIFICATES

1. INTRODUCTION

- 1.1 Before a Nepalese Certificate of Airworthiness may be granted to an aircraft, the aircraft type must have received approval by the grant of a Nepalese Type Certificate or by validating a Type Certificate (or an equivalent document) issued by an Airworthiness Authority of a contracting state. A Type Certificate issued or validated by the Director General approves the design of the aircraft and any variants specified on associated Data Sheets.
- 1.2 This chapter prescribes the requirements applicable to the issue or validation of a Type Certificate (or an equivalent document) with respect to an aircraft.

2. ISSUANCE OR VALIDATION OF A TYPE CERTIFICATE

- 2.1 The Director General may issue a Nepalese Type Certificate or validate a Type Certificate (or an equivalent document) issued by an Airworthiness Authority of a Contracting State for an aircraft if:
 - a) it is established to the satisfaction of the Director General that the aircraft (including power units, systems and equipments) was designed in accordance with basic airworthiness design standards of ICAO Annex 8 or Part 23, 25, 27 or

29, as appropriate, of the Federal Aviation Regulations of the United States of America or their equivalent standards issued by other Contracting State, or

- b) the Airworthiness Authority of either the USA (FAA) or [EU \(EASA\)](#).

2.2 An applicant for a Type Certificate for an aircraft for which a Nepalese Certificate of Airworthiness is required may apply in writing to the Director General. The application which should be made in Form B.1.1 shown in Appendix-1 of this Chapter B.1 must be accompanied by the following type data:

- a) Particulars of the basic airworthiness design standards to which the aircraft was designed, including the title, issue number and date. Full information on any deviations from these standards must also be submitted.

Note 1: The Organization Responsible for Type Design is most often but not always, the manufacturer of the aircraft. It will normally be the holder of the Type Certificate or an equivalent document.

Note 2 : A Type Certificate (or an equivalent document) and Type Certificate Data Sheet issued by the State of Manufacture is acceptable for this purpose.

- b) All Supplemental Type Certificates issued by the State of Manufacture for the aircraft type.
- c) A three view drawing of the aircraft and any other drawings necessary to define the aircraft.

- d) General arrangement drawings of the main assemblies of the structure, systems and components.

Note: A set of manufacturers' Illustrated Parts Catalogues for the airframe, engine and vendor components is acceptable for this purpose.

- e) for aeroplanes of a maximum certificated take-off mass in excess of 45 000 kg or with a passenger seating capacity greater than 60, a design document demonstrating that consideration has been given for the provision of least-risk bomb location so as to minimize the effects of a bomb on the aeroplane and its occupants.
- f) In all aeroplanes which are required by Director General to have approved flight crew compartment door, and for which an application for the issue of a type certificate is first submitted to the appropriate national authority on or after 20 May 2006, the flight crew compartment bulkheads, floors and ceilings shall be designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusion, if these areas are accessible in flight to passengers and cabin crew.
- g) For aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60, design consideration shall be taken into account that will deter the easy concealment of weapons, explosives or other dangerous objects on board aircraft and that will facilitate each procedures for such objects.

- h) A list of documents which identifies all technical publications of State of Manufacture and manufacturers of aircraft, engine and vendor component (as far as possible) as well as one copy of all such publications in English to support the continuing airworthiness of the aircraft.
- i) A written subscription from operator for the continuing airworthiness information from designer/manufacturer. The operator shall ensure that a copy of such data are made available to Civil Aviation Authority of Nepal too.
- j) The Certificate of Noise Compliance issued by the State of Manufacture.
- k) The flight test report.
- l) A copy of voucher against the payment of required fee for the issuance/validation of Type Certificate
- m) Any other relevant documents required by the Director General.

- 2.3 The Director General may request further information, including proof of compliance with basic airworthiness design standards acceptable to the Director General. The Director General may issue or validate a Type Certificate (or an equivalent document) and a Type Certificate Data Sheet stating any required conditions, limitations in respect to the aircraft type where the Director General is satisfied that there is compliance with all requirements of NCAR and that the design does not have any features or characteristics that render it unsafe under the anticipated operating conditions.

Note: When a Type Certificate has been issued, the type of aircraft concerned is acceptable for application to receive a Nepalese Certificate of Airworthiness in accordance with the procedures of Chapter B.2 .

3. FORM OF TYPE CERTIFICATE

- 3.1 Where a Type Certificate is issued or validated, it shall be in a Form B.1.2 or Form B.1.3 as shown in Appendix - 2 or Appendix – 3 as appropriate to this Chapter B.1.
- 3.2 The Type Certificate will contain:
- a) The designation of the type,
 - b) A statement that the type of aircraft concerned is acceptable for Nepalese Airworthiness certification,
 - c) A reference to the associated Type Certificate Data Sheet,
 - d) The Type Certificate number,
 - e) The name of the applicant,
 - f) A reference to the NCAR chapter that the Type Certificate is issued pursuant to.
- 3.3 A Supplemental Type Certificate may be issued if aircraft of the type incorporates modifications which make it a variant of the original type.
- 3.4 A new Type Certificate may be issued when substantial changes are incorporated which affect the basic design, such as:
- (a) The change in design, power configuration (engines), power limitation (engines) speed limitations (engines) or width is so extensive that a substantially complete investigation of compliance with the applicable requirements is required, or
 - (b) Where the change is;
 - (i) in the number of engines or rotors, or

(ii) to engines or rotors, using different principles of operation, or

(c) In the case of an aircraft engine, the change is in the principle of operation, or

(d) In the case of propellers, the change is in the number of blades or principle of pitch change operation.

4. FORM OF TYPE CERTIFICATE DATA SHEET

- 4.1 The Type Certificate Data Sheet is part of the Type Certificate and will give the basis of certification and the designation of each aircraft variant, included as part of the Type Certificate. It will also define general particulars of the design and prescribe conditions and limitations under which the Type Certificate is granted.
- 4.2 Where a Type Certificate Data Sheet is issued or validated, it shall be in a Form B.1.4 or Form B.1.5 as shown in Appendix-4 or 5, as appropriate to this Chapter B.1.

5. DISTRIBUTION OF TYPE CERTIFICATE AND TYPE CERTIFICATE DATA SHEETS

- 5.1 The Type Certificate and Type Certificate Data Sheet will be issued to the applicant.
- 5.2 Copies of Type Certificate and Type Certificate Data Sheet may be obtained from the Airworthiness Inspection Division, Aviation Safety Department, Civil Aviation Authority of Nepal.

6. RESPONSIBILITY OF HOLDERS OF NEPALESE TYPE CERTIFICATE

The holder of a Nepalese Type Certificate is responsible to ensure that :

- (a) a system of continuing airworthiness is maintained which will collect and perform ongoing analysis of defects, accidents, maintenance and other operational information and which will initiate and transmit recommended or mandatory actions needed to be taken by owners or operators in response to that analysis.
- (b) the details of those corrective actions which are necessary to preserve airworthiness are communicated to the Director General in order that mandatory airworthiness actions can be determined and taken.

7. VARIATION OR CANCELLATION OF TYPE CERTIFICATE

- 7.1 At suitable times the Director General will review the holder of the Type Certificate, the type design to determine if the Type Certificate is still required or a variation is necessary. On the basis of this review, the Director General will make such changes or cancellations as may be appropriate to the circumstances.
- 7.2 In the event that the holder of the Nepalese Type Certificate, either ceases to function, or fails to discharge the responsibilities of paragraph 6 above, the holder of the Type Certificate will be required to surrender the Type Certificate, or where another organization exists who can discharge the responsibilities of paragraph 6, transfer the Type Certificate to that organization. When no such arrangements can be made, the Type Certificate will be cancelled.

8. CONTINUING AIRWORTHINESS

- 8.1 In the interests of safety and where, in the opinion of the Director General, the current maintenance instructions applicable to an aircraft type are not adequate to detect defects because of the number of flight hours or flight cycles

or age in calendar years accumulated by that aircraft type, the Director General may require the holder of the Type Certificate to prepare additional maintenance instructions in a form and manner acceptable to the Director General. These additional maintenance instructions shall be prepared in a format to include such contents as are described in Chapter C.14 and C.15 of these Requirements.

- 8.2 Where additional maintenance instructions are required by the Director General, their implementation may be mandated by Airworthiness Directive in accordance with Chapter C.5 of these Requirements. Standards which identify limitations within which aircraft types shall be required to have additional maintenance instructions prepared, are included within Chapter C.14 and C.15 of these Requirements.
- 8.3 Where additional maintenance instructions are prepared and mandated in accordance with paragraph 8.1 and paragraph 8.2 above, the holder of the Type Certificate shall make the instructions and any subsequent changes to the instructions, available to any person or organization required to comply with any of those instructions.

9 AIRCRAFT NOISE CERIFICATION

- 9.1 Noise Certification shall apply for aircraft engaged in international operation.
- 9.2 Noise Certification shall be validated by Director General on the basis of certificate issued by state of design.
- 9.3 The validated noise certificate shall be on board aircraft for international operation.
- 9.4 The validated noise certificate shall contain the details of the original certificate issued by the state of design.

- 9.5 The validated noise certificate shall be uniformly numbered in arabic numerals as in original certifiante.
- 9.6 The administrative records of noise certificate validation shall be maintained in Airworthiness Inspection Division, Aviation Safety Department.
- 9.7 Director Genenral shall validate the noise certificate granted by another contracting state provided that the basic requiremntns are met.

Civil Aviation Authority of Nepal.INSTRUCTIONS

The Form B.1.1 given in Appendix 1 consists of two Parts. In Part I, the applicant provides or references all the necessary information and in Part II, the Airworthiness Authority of the State of Manufacture certifies the validity of the regulatory information.

Part I

The applicant need not to be responsible for the control of the product design / manufacture, but he must be able to provide the necessary access to those who are responsible for the product design / manufacture.

Part II

In addition to certifying the validity of the regulatory information on the application, endorsement ensures that the Airworthiness Authority of the State of Manufacture is aware that the Nepalese Type Certification process has been initiated.

The Airworthiness official identified on the application, or his representative, will normally be requested to support the Type Certification program in accordance with agreed procedures, and may be requested to make findings of compliance on behalf of the Director General.

Form B.1.1.

Appendix-1

CIVIL AVIATION AUTHORITY OF NEPAL

**APPLICATION FOR ISSUE/VALIDATION OF
TYPE CERTIFICATE OF AIRCRAFT**

PART I - TO BE COMPLETED BY THE APPLICANT

1) Name and Address of the Applicant

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2) Application is hereby made for Nepalese approval of the design of the aeronautical product prescribed below:

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3) Is the applicant responsible for control of product manufacturing in accordance with the approved design?

Yes No

If no, please provide details, including the name and address of the responsible party

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4) Does the applicant hold any Supplemental Type Certificates for which concurrent approval is being sought?

Yes No

If yes, please indicate the nature of the approval

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5) Is the applicant requesting concurrent review for compliance with design-related Operational Requirements (including Master Minimum Equipment List)?

Yes No

6) Applicant shall submit the documents identified in Paragraph 2.2 of Chapter B.1 to the Nepalese Civil Airworthiness Requirements in support of this application.

7) The applicant shall submit a statement detailing the basis of type design certification of the product applied by the Airworthiness Authority of the State of Manufacture, including any special conditions, and the date of application for Nepalese type design certification.

- 8) The applicant shall submit a statement detailing any exemptions from, or findings of equivalent safety with, the basic airworthiness design standards for the aircraft, engines and propellers as approved by the Airworthiness Authority of State of Manufacture. Documentation explaining the rationale for accepting these items should be included. Copies shall be provided for all such exemptions or findings of equivalent safety.
- 9) The applicant shall also submit a document detailing the proposed Nepalese basis of approval.

Title :

Date :

When Part I and Part II have been completed, submit to: The Airworthiness Division, Aviation Safety Directorate, Civil Aviation Authority of Nepal.

I declare that the details in this application are true in every respect

Signature of the Applicant :

Date:

PART II - To be completed by the Airworthiness Authority of the State of Manufacture before submission to Civil Aviation Authority of Nepal.

Correspondence relating to this approval by Civil Aviation Authority of Nepal may be forwarded to the following Airworthiness Authority Official:

Name :

Address :

Telephone: Telex & Facsimile No.:

Title:

It is hereby certified that the statements of basis of approval and deviations, exemptions or differences as specified in PART I Items (7) and (8) are correct and complete, except as follows:

Signature of Airworthiness Authority Official

Appendix-2

Certificate No.:-

CIVIL AVIATION AUTHORITY OF NEPAL

TYPE APPROVAL CERTIFICATE

Pursuant to act of the Nepalese Civil Aviation Rules 1996 (2052 B.S.) and conditions specified in Chapter B.1 (Type Certificate) of the Nepalese Civil Airworthiness Requirements, this Type Approval Certificate is issued to

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for the following aeronautical product(s)

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Details of type design, basis of certification, operating limitations and other associated Airworthiness Requirements, which shall be complied are specified in the Nepalese Civil Airworthiness Requirements.

Date of issue

For the Director General

Appendix-3

CIVIL AVIATION AUTHORITY OF NEPAL

AIRCRAFT TYPE CERTIFICATE DATA SHEET

1. Aircraft Manufacturer :
2. Address of Manufacturer :
3. General Description of Aircraft :
4. Aircraft Model :
5. Aircraft Category:

<input type="checkbox"/>	Transport	Category
(Passenger)	<input type="checkbox"/>	Transport Category (Cargo)
	<input type="checkbox"/>	Private Category
	<input type="checkbox"/>	Aerial Work Category
	<input type="checkbox"/>	Special Category
6. State of Manufacture :
7. Year of Manufacture :
8. Aircraft Serial Number :
9. Type Certification Basis :
10. Production Basis :
11. Airworthiness Authority of the Country
of Manufacture :
12. Type Certification in Other Countries :
13. Dimensions :
 - (i) Wing Span :
 - (ii) Wing Aspect Ratio :

- (iii) Length Overall :
 - (iv) Height Overall :
 - (v) Wheel Track :
 - (vi) Wheel Base :
 - (vii) Wing Area :
14. Type of Engine :
 15. Number of Engines :
 16. Engine Limits :
 17. Propeller and Propeller Limits :
 18. Fuel :Type :Capacity :
 19. Oil :Type :Capacity :
 20. Air Speed Limits :
 - (i) Maximum Operating Speed :
 - (ii) Maneuvering Speed :
 - (iii) Maximum Flap Extended Speed :
 - (iv) Single Engine Minimum Control Speed :
 - (v) Landing Gear Extended Speed :
 - (vi) Demonstrated Cross Wind Component :
 21. Datum :
 22. Leveling Means :
 23. C.G. Range :

24. Weights :
 - (i) Maximum Taxing Weight :
 - (ii) Maximum Take off Weight :
 - (iii) Maximum Landing Weight :
 - (iv) Zero Fuel Weight :
25. Minimum Crew :
26. Number of Seats :
27. Maximum Baggage :
28. Control Surface Moments :
 - (i) Wing Flaps, Inner and Outer :
 - (ii) Ailerons :
 - (iii) Aileron Tab :
 - (iv) Elevator :
 - (v) Elevator Tab :
 - (vi) Rudder Tab :
29. Maximum Operating Altitude :
30. Maximum Operating Temperature :
31. Operating Manuals :
32. Airworthiness Limitations :

33. Instructions for Continued Airworthiness :

34. Equipment :

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Date of issue

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For the Director General

Form B.1.4

Appendix-4

CIVIL AVIATION AUTHORITY OF NEPAL

ROTORCRAFT TYPE CERTIFICATE DATA SHEET

1. Rotorcraft Manufacturer :

2. Address of Manufacture :

3. General Description of Rotorcraft :

4. Rotorcraft Model :

5. Rotorcraft Category :

Transport Category (Passenger)

Transport Category (Cargo)

Private Category

Aerial Work Category

Special Category

6. State of Manufacture :

7. Year of Manufacture :

8. Rotorcraft Serial Number :

9. Type Certification Basis :

10. Production Basis :

11. Airworthiness Authority of the Country
of Manufacture :

12. Type Certification in Other Countries :

13. Dimensions :
 - (i) Diameter of Main Rotor:
 - (ii) Main Rotor Blade Chord:
 - (iii) Diameter of Tail Rotor:
 - (iv) Length Overall :
 - (v) Length of Fuselage:
 - (vi) Height Overall :
 - (vii) Wheel Track:
 - (viii) Wheel Base:
14. Type of Engine :
15. Number of Engines :
16. Engine Operating Limits :

All Engines Operating :

One Engine Inoperative Limits :
17. Main Rotor Limits :Power Off :Power On :
18. Fuel :Type :Capacity :
19. Oil :Type :Capacity :
20. Air Speed Limits :

Never Exceed Speed Power On :

Never Exceed Speed Power Off :
21. Datum :
22. Leveling Means :
23. C.G. Range :

24. Maximum Take-off Weight :Zero Fuel Weight :
25. Minimum Crew :
26. Number of Seats :
27. Maximum Baggage :
28. Control Movements :
29. Maximum Operating Altitude :
30. Maximum Operating Temperature :
31. Operating Manuals :
32. Airworthiness Limitations :
33. Instructions for Continued Airworthiness :
34. Equipment :

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Date of issue

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For the Director General