
**Aircraft — Declaration of design and
performance for aircraft equipment —
Standard form**

*Aéronefs — Déclaration de définition et de performance des équipements
aéronautiques — Formulaire normalisé*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The main task of a technical committee is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1: when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2: when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3: when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

Technical Report ISO/TR 224, which is a Technical Report of type 1, was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*.

Annex A forms an integral part of this Technical Report.

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Introduction

In 1990, ISO/TC 20 started working on a revision of ISO/DIS 224, *Aircraft – Declaration of design and performance for aircraft equipment – Standard form*.

In 1994, ISO/TC 20's resolution 620 judged it appropriate to publish the results of the work as a Technical Report because of some comments outlining the difficulties of its application which may conflict with JAR-TSO.

However, if an approval authority, an aircraft manufacturer, or an operator asks for information on the design and performances of an equipment item, any applicable restrictions, and its degree of compliance with ISO 7137 or with any other standard to be specified, we recommend that the equipment designer use this standard declaration form.

The results of official certification procedures in member countries cannot be judged in advance from the indications given in the declaration of design and performance.

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Aircraft — Declaration of design and performance for aircraft equipment — Standard form

1 Scope

This Technical Report specifies the standard form to be used for a declaration of design and performance (DDP) for aircraft equipment.

A DDP is the commitment of a manufacturer to deliver a product complying with the defined dimensions and performances, based on qualification tests carried out by the NSO (National Surveillance Organization), a major user or by the manufacturer himself.

A DDP is not a compulsory procedure, it remains optional; its purpose is to avoid repeated qualification tests for each use.

For a specific program, the DDP can be certified for the aircraft manufacturer or the NSO. This means that the commitments of the manufacturer were met when the aircraft was certified.

The DDP is intended for components and equipment which do not relate to any national or international or aircraft manufacturer specification.

If a normative document giving a full definition of a product exists, the dimensions, performances and qualification of the product in question must be in accordance with that document.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Technical Report. At the time of the publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on the International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2669:1995, *Environmental tests for aircraft equipment – Steady-state acceleration.*

ISO 2671:1982, *Environmental tests for aircraft equipment – Acoustic vibration.*

ISO 2678:1985, *Environmental tests for aircraft equipment – Insulation resistance and high voltage tests for electrical equipment.*

ISO 2685:—¹⁾, *Aircraft – Environmental test procedure for airborne equipment – Resistance to fire in designated fire zone.*

ISO 7137:1995, *Aircraft – Environmental conditions and test procedures for airborne equipment.*

1) To be published. (Revision of ISO 2685:1992)

3 Specifications relating to the standard form

3.1 The content of a DDP for aircraft equipment shall be in accordance with the requirements of annex A.

The declaration shall comply with the headings and be in order given in annex A, using additional spacing if required.

Where a heading is not appropriate, insert "not applicable".

Where test are specified but have not been carried out, insert "not tested".

3.2 Each page of the declaration shall be numbered as follows:

Page 1 of pages
Page 2 of pages
etc.

3.3 Approving authorities may be

a) aircraft or systems manufacturers; or

b) national/governmental agencies, according to the laws and regulations in force in each country considered, defining the meaning of the stamp on the declaration;

c) or both.

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Annex A
(normative)

Standard form for declaration of design and performance (DDP)

DDP no.:

Issue no.:

NOTE — Before specifying equipment, check with [manufacturer's name] that this declaration is the currently valid version.

Approving authority (if applicable)

Manufacturer

Name:

Address:

.....

Declaration of design and performance

of
(quote generic name of equipment)

Type number:

Development stage: preliminary study / prototype / production / flying clearance / airworthiness certification

Other identification data (e.g. computer code):

Description:

Mass:

Overall dimensions and position of the centre of gravity
(or reference to drawing if attached):

Assembly diagram number:

Definition specification reference:

Drawing nomenclature reference:

Quality control procedure reference:

Development contract no. (if applicable):

Modification standard reference:
(if applicable to this declaration)

System or wiring diagram (if applicable):

Maintenance, repair and overhaul manual reference:

Test report references:

Fault analysis reports (as appropriate):

Details of approvals obtained for similar equipment (and a brief summary of equipment application and experience):
.....

Airworthiness requirements with which the equipment complies (if applicable):

.....

Performance

The limits of declared performance and those implied by the declarations below are not intended to be absolute, but are intended to indicate the performance which has been shown by tests.

Declare the equipment performance limits under the appropriate headings (i.e. electrical and mechanical input and output characteristics which are particular to the equipment, times and duration of cycles, accuracy, etc.).

Declarations

State here those declarations required by the relevant sections of ISO 7137, or, if necessary, by other standards to be specified, relating to environmental and service conditions for aircraft equipment as stated in table A.1, and also any additional declarations required by relevant equipment specifications.

Limitations

Limitations are the minimum life or useful service between equipment overhaul (based on test results and/or operational experience), as well as any standard tests necessary to satisfy safety requirements.

The equipment designer shall state any known limitations of which the user should be aware which are not specifically covered by the above-mentioned declarations.

Departures from specification

The equipment designer shall list any departures from the requirements of ISO 7137, or of other applicable standards to be specified, as well as from the design specifications which the equipment must meet.

Manufacturer's statement

I hereby certify the information contained in this declaration of design and performance (DDP) is accurate.

..... (manufacturer's name) declines all responsibility regarding the satisfactory operation of equipment used beyond the above-declared conditions without prior agreement.

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Manufacturer

Name of signatory.....
Title or function
Approval reference no.
Signed
On behalf of (manufacturer's name)
Date

Approving authority

(optional)

Name of signatory
Title of position
Approval reference no.
Signed or stamped
On behalf of
Dated

NOTE — Where authority for obtaining certification is delegated to the user of the equipment, insert the delegated authority.

Additional approval

(optional)

Name of signatory
Title of position
Signed or stamped
On behalf of
Date

Registered under no.
(if applicable)