INTERNATIONAL STANDARD

ISO
3323

Second edition
1987-07-15

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Aircraft — Hydraulic components — Marking to indicate fluid for which component is approved

Aéronefs — Composants hydrauliques — Marquage indiquant le fluide pour lequel les composants sont approuvés

Reference number
ISO 3323 : 1987 (E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3323 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles.*

This second edition cancels and replaces the first edition (ISO 3323 : 1976), of which it constitutes a technical revision (particularly with regard to colour of plates or labels).

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Printed in Switzerland

Aircraft — Hydraulic components — Marking to indicate fluid for which component is approved

1 Scope and field of application

This International Standard establishes a scheme for the marking of components (other than pipelines, hoses and fittings) used in aircraft hydraulic systems, so that the correct type of fluid is readily apparent during any assembly or testing operations in workshops. The marking is not intended to serve any purpose when a component is installed in an aircraft.

NOTE — The requirements for the marking of pipelines and hoses in aerospace vehicles to indicate the type of fluid for which they are approved are given in ISO 12.

2 Reference

ISO 12, *Aerospace — Tubes and pipelines — Identification.*

3 Scheme

A component which is to be fitted in an aircraft hydraulic system shall indicate the type of hydraulic fluid for which it is approved by means of a plate, clearly marked with the name of that type of fluid. The types of hydraulic fluid are as follows:

- mineral base
- synthetic hydrocarbon base
- chlorinated silicone base
- phosphate ester base
- castor base
- silicate ester base

Optionally, the name and/or specification number of the particular hydraulic fluid may also be marked. An example of a typical plate is shown in figure 1. The term "label" may be used to describe the plastic alternative to a metallic plate.

The plates (or labels) shall be neutral in colour except those for phosphate ester based fluids which shall be violet in colour as specified in 4.4.

4 Materials, design and manufacture

4.1 The identification plate shall be secured to the component in such a manner that it is readily visible and will not become detached under normal conditions of use. The plate shall be mechanically secured to the component when it is used to identify fluids likely to corrode glued joints, such as Skydrol chosen as an example in figure 1.

4.2 If a component is large enough to accommodate a manufacturer's nameplate, provided that the size of the component allows, the identification plate may be incorporated in the manufacturer's nameplate.

4.3 The materials used for plates shall be durable and resistant to the effects of the appropriate hydraulic fluids and of the environmental conditions of use, for example anodized metal or plastics.

4.4 For phosphate ester based fluids, the colour of the label shall be violet, identified by chromaticity coordinates and spectral radiance factor, $x = 0,337$, $y = 0,242$ and $\beta = 6,5$ % under CIE[1] Standard illuminant B.

4.5 The dimensions of the identification plate shall be at the option of the manufacturer or user of the component, commensurate with the dimensions of the hydraulic component. Preferred dimensions are shown in figure 2.

4.6 The size of the lettering shall be as large as practicable commensurate with the size of the plate.

1) Commission Internationale de l'Éclairage (International Commission on Illumination).