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# INTERNATIONAL STANDARD



# 451

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

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## Aircraft — Pressure re-oiling connection

*Aéronefs — Raccord pour remplissage sous pression en lubrifiant*

First edition — 1976-06-15

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Ref. No. ISO 451-1976 (E)

**Descriptors** : aircraft equipment, lubrication systems, pipe fittings, couplings, dimensions.

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 20 has reviewed ISO Recommendation R 451 and found it technically suitable for transformation. International Standard ISO 451 therefore replaces ISO Recommendation R 451-1965 to which it is technically identical.

ISO Recommendation R 451 was approved by the Member Bodies of the following countries :

|                |             |                |
|----------------|-------------|----------------|
| Belgium        | Iran        | Portugal       |
| Canada         | Israel      | Spain          |
| Chile          | Italy       | Sweden         |
| Czechoslovakia | Japan       | Turkey         |
| Finland        | Netherlands | United Kingdom |
| France         | New Zealand | U.S.S.R.       |
| Germany        | Poland      | Yugoslavia     |

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 451 into an International Standard.

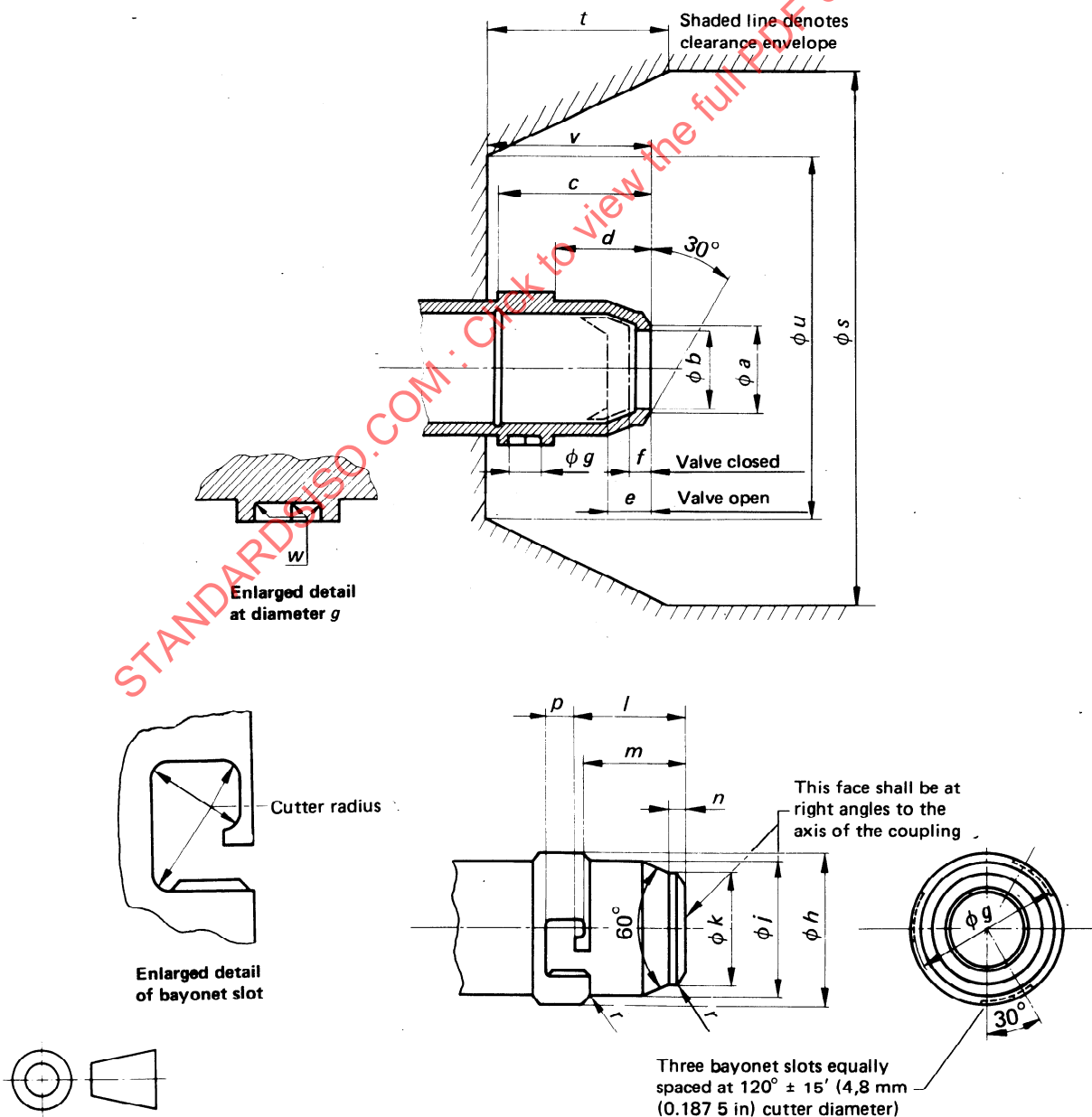
# Aircraft — Pressure re-oiling connection

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the basic dimensions of a pressure re-oiling connection for use with all oils for aircraft engines, and the clearance envelope to be provided.

## 2 REQUIRED CHARACTERISTICS

The dimensions and tolerances of the connection and space envelope are given in the figure and table.



| Dimension              |      | mm         | in              |
|------------------------|------|------------|-----------------|
| <i>a</i>               | max. | 18,97      | 0.747           |
|                        | min. | 18,85      | 0.742           |
| <i>b</i>               | max. | 17,70      | 0.697           |
|                        | min. | 17,63      | 0.694           |
| <i>c</i>               |      | 31         | 1.22            |
| <i>d</i>               |      | 20,8       | 0.82            |
| <i>e</i>               | min. | 9,7        | 0.38            |
| <i>f</i>               | max. | 4,1        | 0.16            |
| <i>g</i> <sup>1)</sup> | max. | 28,45      | 1.12            |
|                        | min. | 28,19      | 1.11            |
| <i>h</i>               | max. | 31,72      | 1.249           |
|                        | min. | 31,67      | 1.247           |
| <i>j</i>               | max. | 27,94      | 1.100           |
|                        | min. | 27,89      | 1.098           |
| <i>k</i>               |      | 20,8       | 0.82            |
| <i>l</i>               | max. | 23,9       | 0.94            |
|                        | min. | 23,6       | 0.93            |
| <i>m</i>               | max. | 22,61      | 0.890           |
|                        | min. | 22,48      | 0.885           |
| <i>n</i>               |      | 2,3        | 0.09            |
| <i>p</i> <sup>2)</sup> |      | 4,8 ± 0,25 | 0.187 5 ± 0.010 |
| <i>r</i> <sup>3)</sup> |      | 0,8        | 0.03            |
| <i>s</i> <sup>4)</sup> | min. | 127        | 5               |
| <i>t</i>               | max. | 45         | 1.75            |
| <i>u</i> <sup>4)</sup> | min. | 76         | 3               |
| <i>v</i>               | min. | 31,8       | 1.25            |
| <i>w</i> <sup>3)</sup> |      | 0,25       | 0.010           |

1) Diameter at bottom of bayonet slots.

2) Cutter diameter.

3) Radius.

4) Minimum clearance about axis of connector.

Tolerances : unless otherwise stated,

dimensional tolerance : ± 0,25 mm (0.01 in)

angular tolerance : ± 0° 30'