

# INTERNATIONAL STANDARD

**ISO  
11007**

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## **Petroleum products and lubricants — Determination of rust-prevention characteristics of lubricating greases**

*Produits pétroliers et lubrifiants — Détermination des caractéristiques  
antirouille des graisses lubrifiantes*



Reference number  
ISO 11007:1997(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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11007 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

Annexes A and B of this International Standard are for information only.

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# Petroleum products and lubricants - Determination of rust-prevention characteristics of lubricating greases

**WARNING** - The use of this International Standard may involve hazardous materials, operations and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

## 1 Scope

This International Standard specifies a method for the determination of the rust-prevention characteristics of lubricating grease in the presence of an aqueous test fluid.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this 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 15:1981, *Rolling bearings - Radial bearings - Boundary dimensions - General plan*.

ISO 648:1977, *Laboratory glassware - One-mark pipettes*.

ISO 3696:1987, *Water for analytical laboratory use - Specification and test methods*.

ISO 3838:1983, *Crude petroleum and liquid or solid petroleum products - Determination of density or relative density - Capillary-stoppered pycnometer and graduated bicapillary pycnometer methods*.

ISO 7120:1987, *Petroleum products and lubricants - Petroleum oils and other fluids - Determination of rust-preventing characteristics in the presence of water*.

## 3 Principle

A test portion of grease is run in a specialized and carefully cleaned test rig under prescribed conditions for a total of 24 h, in three separate 8 h periods, after introduction of an aqueous test fluid. At the end of the test period, the apparatus is dismantled and the condition of the outer ring track of the bearing is examined for corrosion and rated on an arbitrary scale.

## 4 Reagents and materials

During the analysis, use only reagents of recognized analytical grade.

**4.1 Wash solvent**, consisting of low-sulfur, low aromatic, low volatility hydrocarbon.

NOTE 1 White spirit to British Standard BS 245 or mineral spirit to ASTM D 285 (all classes) is suitable (see annex B).

**4.2 Water**, conforming to grade 3 of ISO 3696.

NOTE 2 Water as defined in 4.2 is used as a wash solvent but water quality in the test fluids (4.3) is critical, and for these a different grade is specified.

**4.3 Test fluid**. Use one of the following types:

- water conforming to grade 2 of ISO 3696, or
- synthetic sea water conforming to the specification given in ISO 7120, or