INTERNATIONAL STANDARD

ISO 12925-1

First edition
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Lubricants, industrial oils and related products (class L) — Family C (Gears) —

Part 1:
Specifications for lubricants for enclosed gear systems

Lubrifiants, huiles industrielles et produits connexes (classe L) — Famille C (Engrenages) —

Partie 1: Spécifications des lubrifiants pour systèmes d'engrenages sous carter

Reference number
ISO 12925-1:1996(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 12925-1 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*, Subcommittee SC 4, *Classifications and specifications*.

ISO 12925 consists of the following parts, under the general title *Lubricants, industrial oils and related products (class L) — Family C (Gears)*:

— *Part 1: Specifications for lubricants for enclosed gear systems*

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Introduction

Lubricants for gear systems are used in diverse types of gear designs, ranging from simple spur gears to worm gears and hypoid gears. Industrial gear systems, which are either of open type or enclosed type, vary in size from small enclosed systems used in machine tools to very large systems used in steel mills and cement plants.

Lubricants for these applications vary in composition from refined straight mineral oils to complex blends of fatty oils and synthetic products. Some of these are treated with chemical additives to impart or enhance desirable performance properties. Viscosity grades also vary depending on the type of application, from the low viscosity ISO VG 32 to high viscosity ISO VG 1 500. In exceptional cases, viscosity grades may be even higher. Temperature conditions to which the gear systems are exposed also vary considerably, due not only to the ambient conditions of operation but also to the proximity of the gear systems to heat sources, as in the case of cement plants.

This part of ISO 12925 has been formulated to cover lubricants for enclosed gear systems most commonly used by the industry. It does not cover extreme ranges of application in terms of gear design, operating temperatures and load conditions. For such applications, suppliers and purchasers of the lubricant should mutually agree on test methods and their acceptable limits not covered by this part of ISO 12925.

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Lubricants, industrial oils and related products (class L) — Family C (Gears) —

Part 1:
Specifications for lubricants for enclosed gear systems

1 Scope

This part of ISO 12925 establishes the specifications relative to family C (gears) for lubricants, industrial oils and related products of Class L (see ISO 6743-6). This part of ISO 12925 deals only with lubricants for industrial gears in enclosed systems. Lubricants for motor vehicle gears and open industrial gears are not covered.

This part of ISO 12925 should be read in conjunction with ISO 6743-6, which deals with the classification of gear lubricants. Six categories of lubricant intended for continuous lubrication of enclosed gears are covered by this part of ISO 12925 . These categories are CKB, CKC, CKD, CKE, CKS and CKT as classified in ISO 6743-6.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 12925. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 12925 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 2160:—[1],	*Petroleum products - Corrosiveness to copper - Copper strip test.*
ISO 2592: —[2],	*Petroleum products - Determination of flash and fire points - Cleveland open cup method.*
ISO 2909:1981,	*Petroleum products - Calculation of viscosity index from kinematic viscosity.*
ISO 3016:1994,	*Petroleum products - Determination of pour point.*
ISO 3448:1992,	*Industrial liquid lubricants - ISO viscosity classification.*
ISO 6247: —[3],	*Petroleum products - Lubricating oil - Determination of foaming characteristics.*
ISO 6614:1994,	*Petroleum products - Determination of water separability of petroleum oils and synthetic fluids.*

[1] To be published. (Revision of ISO 2160:1985)
[2] To be published. (Revision of ISO 2592:1973)
[3] To be published.