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BS EN ISO 12922:2012



BSI Standards Publication

**Lubricants, industrial oils and related products (class L) —
Family H (Hydraulic systems) —
Specifications for hydraulic fluids in categories HFAE, HFAS, HFB, HFC, HFDR and HFDU**

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This British Standard is the UK implementation of EN ISO 12922:2012. It supersedes BS EN ISO 12922:2002 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee MCE/18, Fluid power systems and components, to Panel MCE/18-/16, Hydraulic fluids.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Lubricants, industrial oils and related products (class L) - Family H (Hydraulic systems) - Specifications for hydraulic fluids in categories HFAE, HFAS, HFB, HFC, HFDR and HFDU (ISO 12922:2012)

Lubrifiants, huiles industrielles et produits connexes (classe L) - Famille H (Systèmes hydrauliques) - Spécifications applicables aux fluides hydrauliques des catégories HFAE, HFAS, HFB, HFC, HFDR et HFDU (ISO 12922:2012)

Schmierstoffe, Industrieöle und verwandte Produkte (Klasse L) - Familie H (Hydraulische Systeme) - Anforderungen an Druckflüssigkeiten in den Kategorien HFAE, HFAS, HFB, HFC, HFDR und HFDU (ISO 12922:2012)

This European Standard was approved by CEN on 1 December 2012.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Foreword

This document (EN ISO 12922:2012) has been prepared by Technical Committee ISO/TC 28 "Petroleum products and lubricants" in collaboration with Technical Committee CEN/TC 19 "Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin", the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 12922:2002.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 12922:2012 has been approved by CEN as a EN ISO 12922:2012 without any modification.

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WARNING — The handling and use of products as specified in this International Standard can be hazardous if suitable precautions are not observed. This International Standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this International Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This International Standard specifies the minimum requirements of unused fire-resistant and less-flammable hydraulic fluids for hydrostatic and hydrodynamic systems in general industrial applications. It is not intended for use in aerospace or power-generation applications, where different requirements apply. It provides guidance for suppliers and end users of these less hazardous fluids and to the manufacturers of hydraulic equipment in which they are used.

Of the categories covered by ISO 6743-4, which classifies the different types of fluids used in hydraulic applications, only the following are detailed in this International Standard: HFAE, HFAS, HFB, HFC, HFDR and HFDU.

Types HFAE, HFAS, HFB, HFC and HFDR are “fire-resistant” fluids as defined by ISO 5598. Most HFDU fluids, while displaying an improvement in combustion behaviour over mineral oil, fall outside this definition and are more appropriately considered “less-flammable” fluids.

NOTE For the purposes of this International Standard, the terms “% (m/m)” and “% (V/V)” are used to represent, respectively, the mass fraction and the volume fraction of a material.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 760:1978, *Determination of water — Karl Fischer method (General method)*

ISO 2160:1998, *Petroleum products — Corrosiveness to copper — Copper strip test*

ISO 3104:1994, *Petroleum products — Transparent and opaque liquids — Determination of kinematic viscosity and calculation of dynamic viscosity*

ISO 3170:2004, *Petroleum liquids — Manual sampling*

ISO 3448:1992, *Industrial liquid lubricants — ISO viscosity classification*

ISO 3675:1998, *Crude petroleum and liquid petroleum products — Laboratory determination of density — Hydrometer method*