International Standard 6743/4

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Lubricants, industrial oils and related products (class L) — Classification — Part 4: Family H (Hydraulic systems)

Lubrifiants, huiles industrielles et produits connexes — Classe L — Classification — Partie 4: Famille H (Systèmes hydrauliques)

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Foreword

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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.

International Standard ISO 6743/4 was developed by Technical Committee ISO/TC 28, *Petroleum products and lubricants*, and was circulated to the member bodies in August 1981.

It has been approved by the member bodies of the following countries:

Australia	India	Romania
Austria	Iran	South Africa, Rep. of
Belgium	Israel	Spain
Brazil	Japan	Sweden
Canada	Korea, Rep. of	Switzerland
Egypt, Arab Rep. of	Netherlands	Turkey
France	Norway	United Kingdom
Germany, F.R.	Peru	USSR
Hungary	Poland	

The member bodies of the following countries expressed disapproval of the document on technical grounds:

Ireland
USA

Printed in Switzerland

Lubricants, industrial oils and related products (class L) — Classification — Part 4 : Family H (Hydraulic systems)

1 Scope and field of application

This part of ISO 6743 establishes the detailed classification of family H (Hydraulic systems) which belongs to class L (Lubricants, industrial oils and related products).

This document should be read in conjunction with part 0.

This classification excludes, for the time being, automotive brake fluids and airborne hydraulic fluids.

2 Reference

ISO 3448, *Industrial liquid lubricants — ISO viscosity classification.*

3 Explanation of symbols used

3.1 This detailed classification of family H has been established by defining the categories of products required for the main applications of this family and final subdivision by reference to composition of corresponding products.

3.2 Each category is designated by a symbol consisting of a group of letters, which together constitute a code.

NOTE — The first letter of the code (H) identifies the family of the product considered but any following letters taken separately have no significance of their own.

The designation of each category can be supplemented by the addition of viscosity grades according to ISO 3448.

3.3 In this classification system, products are designated in a uniform manner. For example, a particular product may be designated in complete form, i.e. ISO-L-HV 32, or in an abbreviated form, i.e. L-HV 32, the number indicating the viscosity according to ISO 3448.

Classification of lubricants, industrial oils and related products (class L)
Part 4 : Family H (Hydraulic systems)

Code letter	General applications	Particular applications	More specific applications	Composition and properties	Symbol ISO-L	Typical applications	Remarks
H	Hydraulic systems	Hydrostatic		Non-inhibited refined mineral oils	HH		
				Refined mineral oils with improved anti-rust and anti-oxidation properties	HL		
				Oils of HL type with improved anti-wear properties	HM	General hydraulic systems which include highly loaded components	
				Oils of HL type with improved viscosity/temperature properties	HR		
				Oils of HM type with improved viscosity/temperature properties	HV	Construction and marine equipment	
				Synthetic fluids with no specific fire resistant properties	HS		Special properties
			Hydraulic slide way systems	Oils of HM type with anti-stick/slip properties	HG	Machines with combined hydraulic and plain bearing way lubrication systems where vibration or intermittent sliding (stick/slip) at low speed is to be minimized	
			Applications where fire resistant fluids are required	Oil-in-water emulsions	HFAE		Typically more than 80 % water content
				Chemical solutions in water	HFAS		Typically more than 80 % water content
				Water-in-oil emulsions	HFB		
				Water polymer solutions	HFC		Typically less than 80 % water content
				Synthetic fluids containing no water and consisting of phosphate esters	HFDR		Fluids in these categories should be selected carefully, taking into account possible environmental or health hazards
				Synthetic fluids containing no water and consisting of chlorinated hydrocarbons	HFDS		
				Synthetic fluids containing no water and consisting of mixtures of HFDR and HFDS fluids	HFDT		
				Synthetic fluids containing no water and of other compositions	HFDU		
		Hydrokinetic	Automatic transmissions		HA		Classification concerning those applications has not been examined in detail and can be supplemented
			Couplers and converters		HN		