

INTERNATIONAL STANDARD

ISO
6743-5

First edition
1988-02-15



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

**Lubricants, industrial oils and related products
(class L) — Classification —**

**Part 5:
Family T (Turbines)**

**STANDARD PREVIEW
(standards.iteh.ai)**

Lubrifiants, huiles industrielles et produits connexes (classe L) — Classification —

Partie 5: Famille T (Turbines)

Reference number
ISO 6743-5:1988 (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.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6743-5 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

ITeH STANDARD PREVIEW
(standards.iteh.ai)

ISO 6743-5:1988
<https://www.iso.org/standard/33b-42dc-ae49-8c7d47d70a41/iso-6743-5-1988>

Lubricants, industrial oils and related products (class L) — Classification —

Part 5: Family T (Turbines)

iTeh STANDARD PREVIEW (standards.iteh.ai)

1 Scope and field of application

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

It should be read in conjunction with ISO 6743-0.

This classification excludes, for the time being, more specific applications for aircraft and hydraulic turbines. However, in regard to those which have been introduced into the classification, provision has been made for certain applications including some product categories which are not yet widely used; this was done in order to provide for future flexibility and quick response to the needs likely to arise. Standards containing specifications defining the categories of products available on the market are being prepared.

2 References

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

ISO 6743-0, *Lubricants, industrial oils and related products (class L) — Classification — Part 0: General*.

3 Explanation of symbols used

3.1 The detailed classification of family D has been established by defining the main applications of this family and the composition of corresponding products.

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

NOTE — The first letter of the code (T) identifies the family of the product considered, but the second and third 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 the complete form, i.e. ISO-L-TSA32, ISO-L-TGB32, or in an abbreviated form, i.e. L-TSA32, or L-TGB32, the number indicating the viscosity grade according to ISO 3448.

In the column headed "symbol ISO-L" in the following table, the various categories of products are designated in an abbreviated form and for the time being no viscosity grade is specified.

While steam turbine and gas turbine applications are classified separately, it is not uncommon for a single turbine lubricant to be used for some designs of both turbine types.

4 Detailed classification

The detailed classification is shown in the following table.

Table – Classification of lubricants for turbines

Code letter	General application	Particular application	More specific application	Composition and properties	Symbol ISO-L	Typical applications	Remarks
T	Turbines	Steam, direct coupled or geared to the load	Normal service	Highly refined petroleum oil with rust protection and oxidation stability	TSA	Power generation and industrial drives and their associated control systems. Marine drives where improved load-carrying ability is not required for the gearing	
			Special properties	Synthetic fluids with no specific fire-resistant properties ^{1) 2)}	TSC	Power generation and industrial drives and their control systems where special properties of the fluid are advantageous, for example oxidation stability, low-temperature properties	
			Fire-resistant	Phosphate ester lubricant ¹⁾	TSD	Power generation and industrial drives and their associated control systems with need for fire resistance	
		Gas, direct coupled or geared to the load	High load-carrying ability	Highly refined petroleum oil with rust protection, oxidation stability and enhanced load-carrying ability	TSE	Power generation and industrial drives, and marine geared drives and their associated control systems where the gearing requires improved load-carrying ability	
			Normal service	Highly refined petroleum oil with rust protection and oxidation stability	TGA	Power generation and industrial drives and their associated control systems. Marine drives where improved load-carrying ability is not required for the gearing	
			Higher temperature service	Highly refined petroleum oil with rust protection and improved oxidation stability	TGB	Power generation and industrial drives and their associated control systems where high temperature resistance is required due to hot spot temperatures	

1) These products may not be compatible with petroleum-based products.

2) This category includes synthetic hydrocarbons as well as other chemical types.

Table – Classification of lubricants for turbines (concluded)

Code letter	General application	Particular application	More specific application	Composition and properties	Symbol ISO-L	Typical applications	Remarks
T	Turbines	Gas, direct coupled or geared to the load	Special properties	Synthetic fluids with no specific fire-resistant properties ^{1) 2)}	TGC	Power generation and industrial drives and their control systems where special properties of the fluid are advantageous, for example oxidation stability, low-temperature properties	
			Fire-resistant	Phosphate ester lubricant ¹⁾	TGD	Power generation and industrial drives and their associated control systems with need for fire-resistance	
			High load-carrying ability	Highly refined petroleum oil with rust protection, oxidation stability and enhanced load-carrying ability	TGE	Power generation and industrial drives, and marine geared drives and their associated control systems where the gearing requires improved load-carrying ability	
		Control system	Fire-resistant Phosphate ester control fluid	TCD	Steam, gas, hydraulic turbine control mechanisms where fluid supply is separate from the lubricant and fire-resistance is needed		
		Aircraft ³⁾ Hydraulic ³⁾			TA TH		

1) These products may not be compatible with petroleum-based products.

2) This category includes synthetic hydrocarbons as well as other chemical types.

3) Classifications for these categories have not been established.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

[ISO 6743-5:1988](#)

<https://standards.iteh.ai/catalog/standards/sist/4942d4cf-f33b-42dc-ae49-8c7d47d70a41/iso-6743-5-1988>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

ISO 6743-5:1988

<https://standards.iteh.ai/catalog/standards/sist/4942d4cf-f33b-42dc-ae49-8c7d47d70a41/iso-6743-5-1988>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 6743-5:1988

<https://standards.iteh.ai/catalog/standards/sist/4942d4cf-f33b-42dc-ae49-8c7d47d70a41/iso-6743-5-1988>

UDC 665.765

Descriptors : petroleum products, lubricants, lubricating oils, classification, turbines.

Price based on 3 pages
