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Third edition
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Reciprocating internal combustion engines — Vocabulary of components and systems —

Part 6: Lubricating systems

Moteurs alternatifs à combustion interne — Vocabulaire des composants et des systèmes —

Partie 6: Systèmes de lubrification

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 70, *Internal combustion engines*.

This third edition cancels and replaces the second edition (ISO 7967-6:2005), which has been technically revised.

The main changes are as follows:

— the definitions of supplementary lubrication, rotating centrifugal lubricating oil filter, back-flushing lubricating oil filter, automatic lubricating oil filter, lubricating oil pump, lubricator, dipstick and filter housing have been modified;

— the definitions of lubricating oil filter, two-stage lubricating oil filter, full-flow lubricating oil filter, bypass lubricating oil filter, spin-on lubricating oil filter and duplex lubricating oil filter have been modified according to ISO 11841-1;

— the following terms have been added: detachable lubricating oil filter, oil gallery, dirty oil gallery, main oil gallery, PCJ oil gallery, piston-cooling jet valve, oil temperature control valve, variable oil pump, anti-drain valve, drain valve and bypass valve.

A list of all parts in the ISO 7967 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The ISO 7967 series establishes a vocabulary for components and systems of reciprocating internal combustion engines.

The ISO 2710 series gives a classification of reciprocating internal combustion engines and defines basic terms for such engines and their characteristics.

Reciprocating internal combustion engines — Vocabulary of components and systems —

Part 6: Lubricating systems

1 Scope

This document defines terms relating to lubricating systems.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Terms related to types of lubricating system

3.1.1
non-pressurized lubrication
system in which lubricating oil is not supplied by pump pressure, but is deposited on the surfaces to be lubricated

EXAMPLE Lubricating oil is supplied by splashing, dripping or oil mist.

3.1.2
oil-in-gasoline lubrication
petroil lubrication
system in which lubricating oil is added to the fuel in a certain proportion and is deposited on the engine parts to be lubricated

3.1.3
force-feed lubrication
pressurized lubrication
system in which the moving parts of the engine are supplied with lubricating oil from one or more pumps

3.1.4
gravity-feed lubrication
gravity oiling
system in which the moving parts of the engine are supplied with lubricating oil under the influence of gravity

3.1.5
drip-feed lubrication
system in which the moving parts of the engine are supplied with lubricating oil in the form of drops

3.2 Terms related to lubricating systems

3.2.1
main running gear lubrication
type or combination of lubricating systems in which the crankshaft bearings, connecting rod bearings, piston-pin bearings, crosshead guiderails, bearings and guideways of the valve gearing, and in some cases also the cylinders and the piston slideway of the cylinders, are supplied with lubricating oil

3.2.2
dip lubrication
non-pressurized lubricating system in which the lubricating oil is taken from the sump or oil pan by dipping moving parts and is thrown into the crankcase and/or the bearings

EXAMPLE Lubricating oil is taken from the sump or oil pan by dipping on the connecting rod.

Note 1 to entry: See Figure 1.

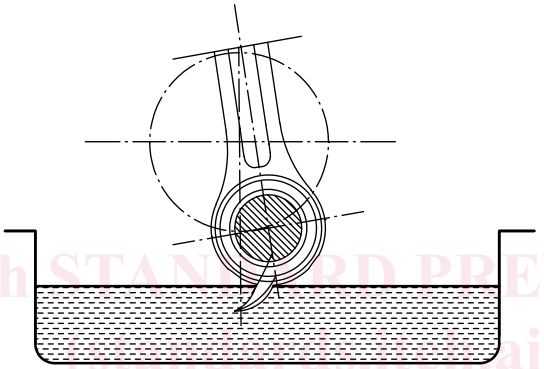

Figure 1 — Dip lubrication

3.2.3
wet sump force-feed lubrication
force-feed lubricating system in which the lubricating oil is collected in the engine sump, which serves as a *lubricating oil tank* (3.3.21)

Note 1 to entry: See Figure 2.

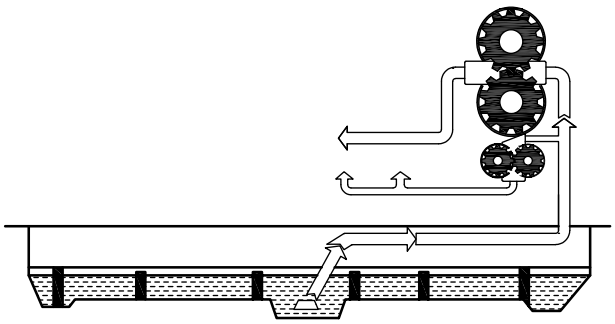

Figure 2 — Wet sump force-feed lubrication

3.2.4
dry sump force-feed lubrication
force-feed lubricating system in which the lubricating oil is collected in a separate *lubricating oil tank* (3.3.21), continuously scavenged from the engine sump and passed back to the lubricating oil tank

Note 1 to entry: See Figure 3.

Note 2 to entry: Figure 3 shows a lubricating system with an oil pan which has an intermediate lubricating oil chamber. Usually, in dry sump systems, lubricating oil is collected into a separate lubricating oil tank.

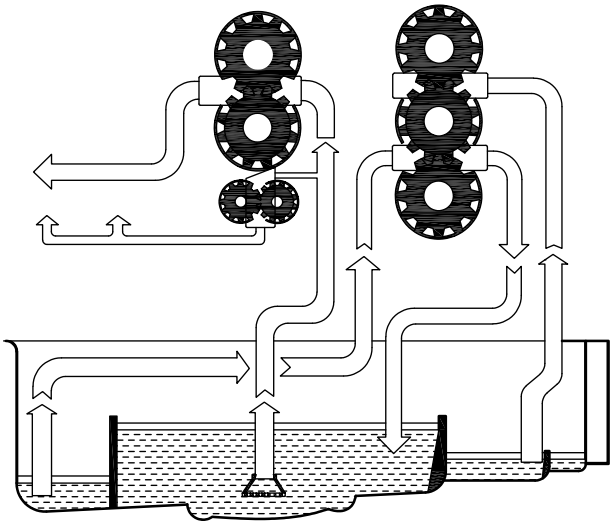

Figure 3 — Dry sump force-feed lubrication

3.2.5
splash lubrication
method of lubricating the engine by relying on lubricating oil thrown by moving parts of the engine

3.2.6
cylinder lubrication
type or combination of lubricating systems for specially supplying the cylinder liners with lubricating oil

3.2.7
supplementary lubrication
method of lubricating engine parts more than is needed in ordinary working conditions to increase the supply of lubricating oil

3.2.8
independent lubrication
method of lubricating the engine parts in which all the lubricating oil is supplied from a source that is independent of the engine

3.3 Terms related to lubricating system components

3.3.1
lubricating oil filter
filter for the cleaning of lubricating oil

[SOURCE: ISO 11841-1:2000, 3.2.4, modified — Notes deleted.]

3.3.2
lubricating oil suction strainer
coarse filter at the entry to the lubricating oil pump suction pipe

Note 1 to entry: See Figure 4.

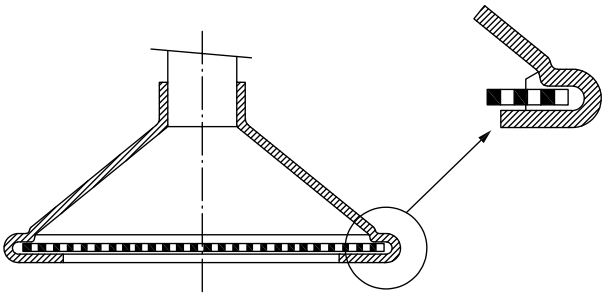

Figure 4 — Lubricating oil suction strainer

3.3.3
single-stage lubricating oil filter
filter in which the lubricating oil passes through only one grade of *filter element* (3.4.3)

Note 1 to entry: See Figure 5.

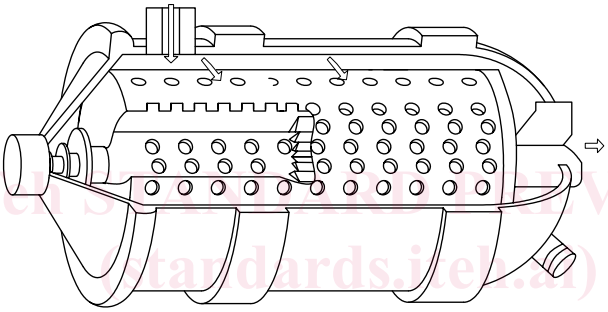

Figure 5 — Single-stage lubricating oil filter

3.3.4
two-stage lubricating oil filter
filter in which the filtration is carried out in two serially connected stages of either the same or different filtration efficiencies

[SOURCE: ISO 11841-1:2000, 3.3.2, modified — Notes deleted.]

3.3.5
rotating centrifugal lubricating oil filter
centrifuge
filter for separation of solid particles or contaminants by centrifugal force due to spinning of the lubricant oil

Note 1 to entry: See Figure 6.

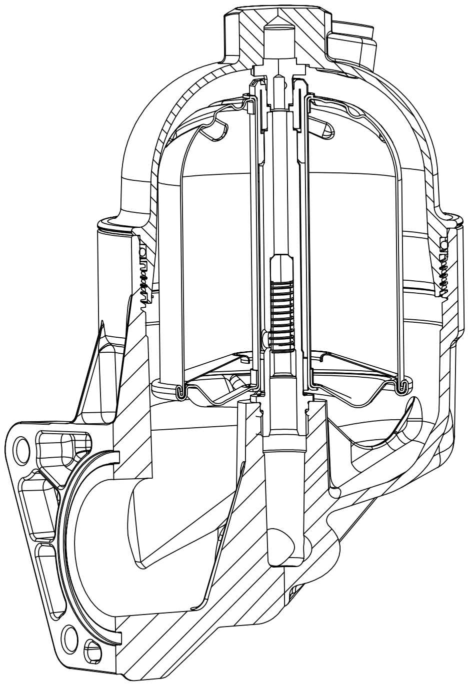

Figure 6 — Rotating centrifugal lubricating oil filter

3.3.6
full-flow lubricating oil filter
filter through which the total volume of fluid delivered to a system flows

Note 1 to entry: See Figure 7.

[SOURCE: ISO 11841-1:2000, 3.4.1, modified — Note 1 to entry added.]

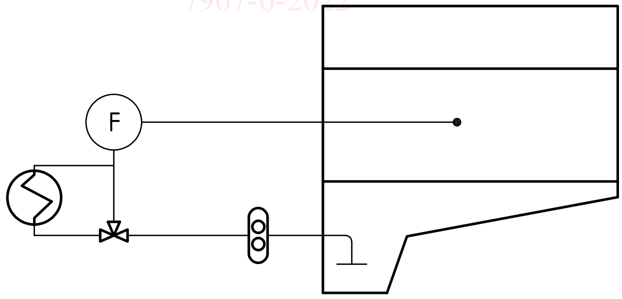

Figure 7 — Full-flow lubricating oil filter

3.3.7
bypass lubricating oil filter
filter through which a partial flow, which is branched off from the total volume, flows

Note 1 to entry: See Figure 8.

[SOURCE: ISO 11841-1:2000, 3.4.2, modified — Notes deleted and Note 1 to entry added.]