Reciprocating internal combustion engines — Vocabulary of components and systems —Part 3: Valves, camshaft drives and actuating mechanisms

ISO copyright office

CP 401 • Ch. de Blandonnet 8

CH-1214 Vernier, Geneva

Phone: +41 22 749 01 11

Fax: +41 22 749 09 47

Email: copyright@iso.org

Website: www.iso.org

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

This third edition cancels and replaces the second edition (ISO 7967-3:2010), which has been technically revised.

The main changes are as follows:

— ~~some~~certain terms and definitions have been modified;

— new terms and definitions related to camshaft, valve, camshaft drive and drive mechanism have been added.

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

This document establishes a vocabulary for components and systems of reciprocating internal combustion engines.

ISO 2710-1 gives a classification of reciprocating internal combustion engines and defines basic terms of such engines, their working and their characteristics.

Reciprocating internal combustion engines — Vocabulary of components and systems — Part 3:Valves, camshaft drives and actuating mechanisms

1 Scope

This document defines terms relating to the valves, camshaft drives and actuating mechanisms of reciprocating internal combustion engines.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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 Camshaft

3.1.1
camshaft
shaft incorporating *cams* (3.1.5) which control the events of the working cycle

Note 1 to entry: The working cycle includes *valve* (3.3.1) opening and closing timings, injection or ignition and accessory driving.

3.1.2
one-piece camshaft
camshaft (3.1.1) where *cams* (3.1.5), shaft and *camshaft signal wheel* (3.1.6) are of one piece

Note 1 to entry: Refer to Figure 1.

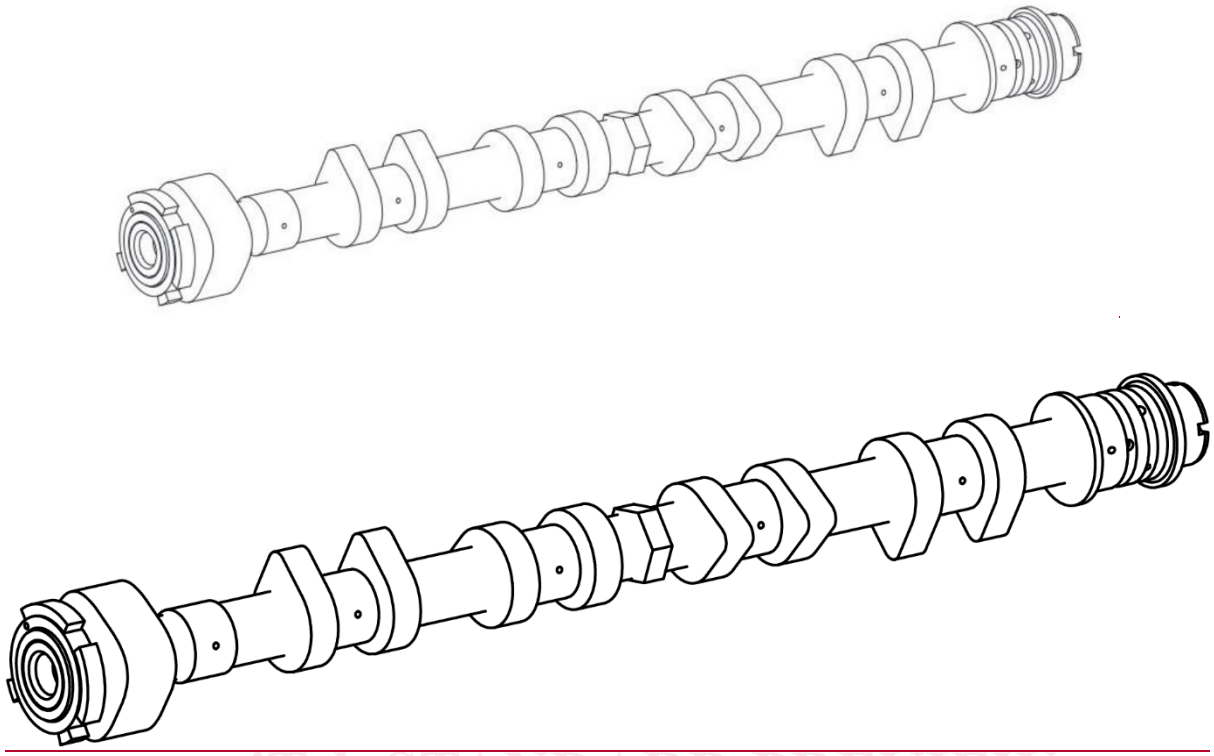
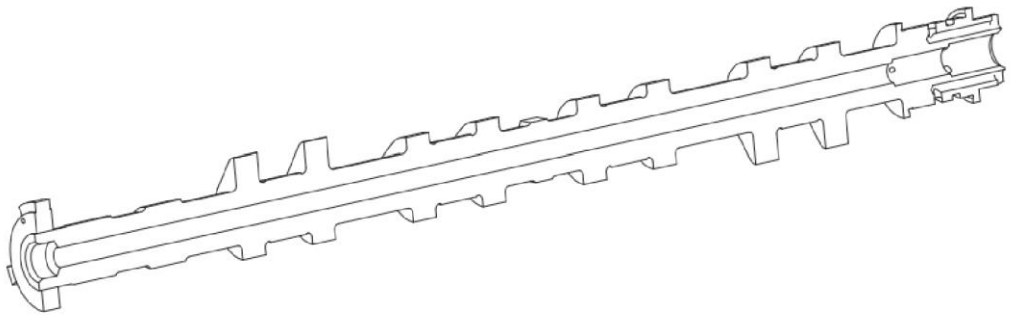


Figure 1 — One-piece camshaft

3.1.3
one-piece hollow camshaft
one-piece *camshaft* (3.1.2) where the shaft is hollow

Note 1 to entry: Refer to Figure 2.



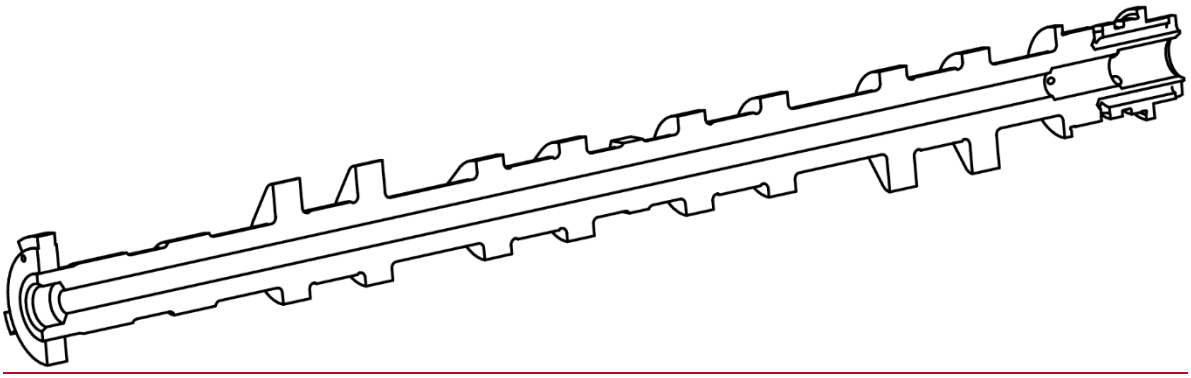


Figure 2 — One-piece hollow camshaft

3.1.4
assembled camshaft
camshaft (3.1.1) where *cams* (3.1.5), *camshaft signal wheel* (3.1.6) and flanges, among other things, are fitted onto the shaft

Note 1 to entry: Refer to Figure 3.

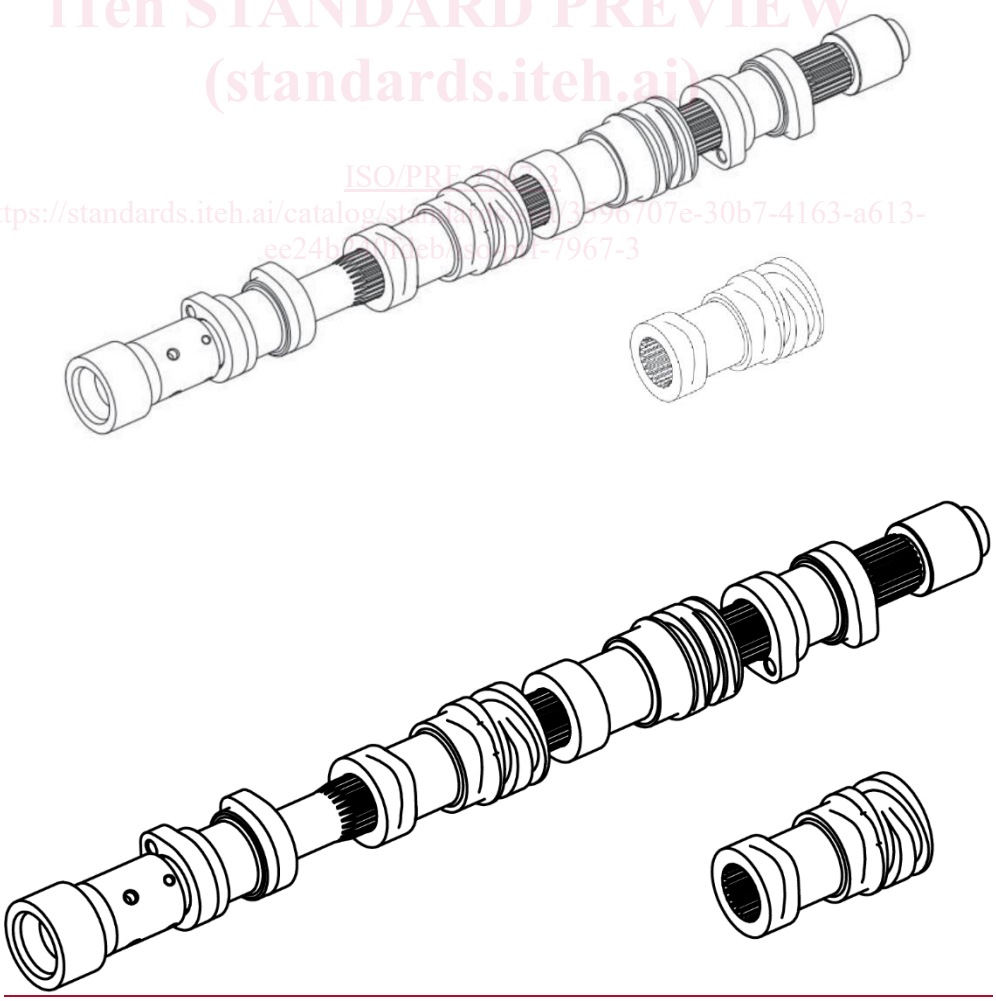


Figure 3— — Assembled camshaft

3.1.5
cam
component by which *valves* (3.3.1) or fuel injection pumps are operated

3.1.6
camshaft signal wheel
component for producing synchronization phase signal on the *camshaft* (3.1.1)

Note 1 to entry: Refer to Figure 4.

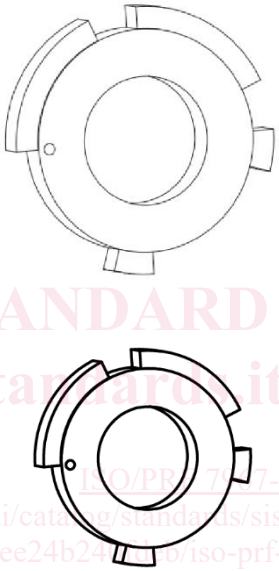


Figure 4— — Camshaft signal wheel

3.2 Camshaft drive

3.2.1
camshaft drive
mechanism by which the *camshaft* (3.1.1) is rotated

3.2.2
gear drive
crankshaft-to-camshaft driven by means of a series of gears

Note 1 to entry: Refer to Figure 5.

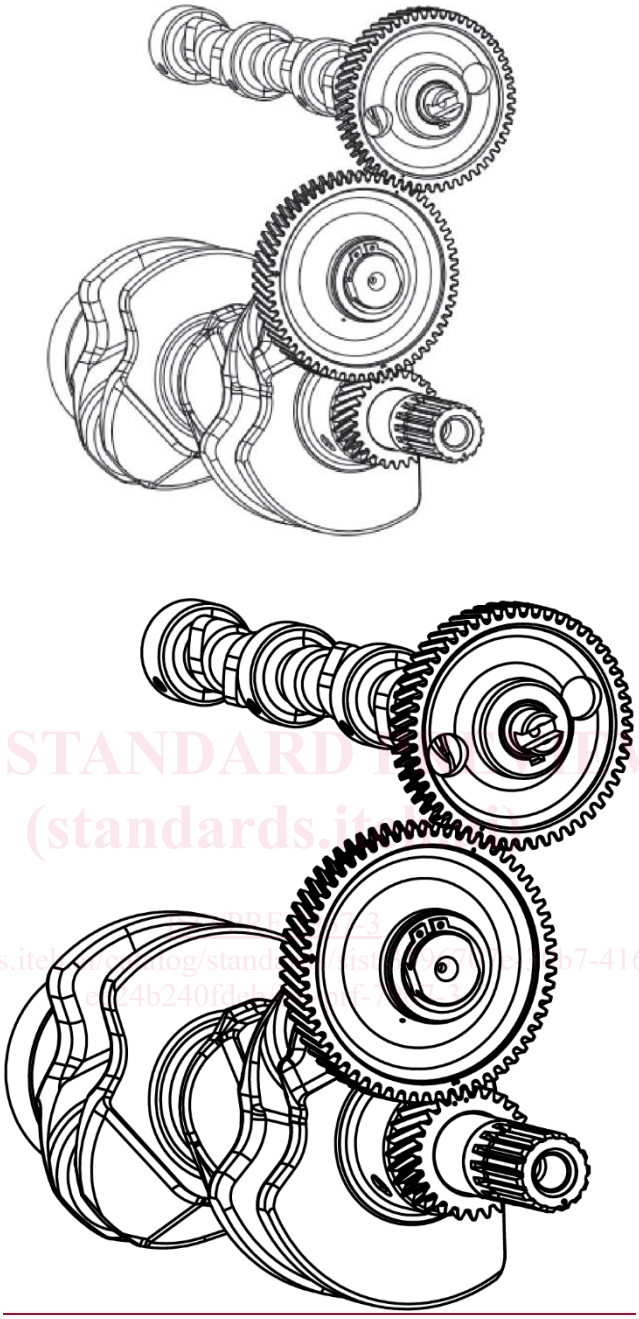


Figure 5— —Gear drive

3.2.3
camshaft timing gear
gear for driving the *camshaft* (3.1.1) and ensuring the phase

Note 1 to entry: Refer to Figure 6.

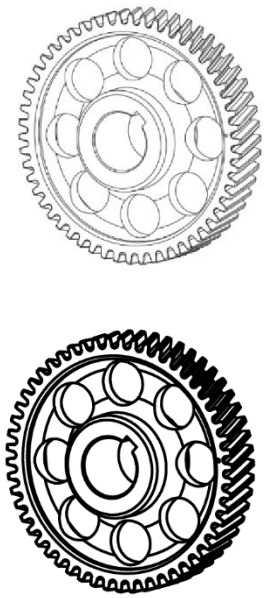


Figure 6— — Camshaft timing gear

3.2.4
chain drive
crankshaft-to-camshaft driven by means of *sprocket wheels* (3.2.5) and *timing chain* (3.2.6)

Note 1 to entry: Refer to Figure 7.

