

Chapter 91

Clocks and watches and parts thereof**Notes.**

- 1.- This Chapter does not cover :
 - (a) Clock or watch glasses or weights (classified according to their constituent material);
 - (b) Watch chains (heading 71.13 or 71.17, as the case may be);
 - (c) Parts of general use defined in Note 2 to Section XV, of base metal (Section XV), or similar goods of plastics (Chapter 39) or of precious metal or metal clad with precious metal (generally heading 71.15); clock or watch springs are, however, to be classified as clock or watch parts (heading 91.14);
 - (d) Bearing balls (heading 73.26 or 84.82, as the case may be);
 - (e) Articles of heading 84.12 constructed to work without an escapement;
 - (f) Ball bearings (heading 84.82); or
 - (g) Articles of Chapter 85, not yet assembled together or with other components into watch or clock movements or into articles suitable for use solely or principally as parts of such movements (Chapter 85).
- 2.- Heading 91.01 covers only watches with case wholly of precious metal or of metal clad with precious metal, or of the same materials combined with natural or cultured pearls, or precious or semi-precious stones (natural, synthetic or reconstructed) of headings 71.01 to 71.04. Watches with case of base metal inlaid with precious metal fall in heading 91.02.
- 3.- For the purposes of this Chapter, the expression "watch movements" means devices regulated by a balance-wheel and hairspring, quartz crystal or any other system capable of determining intervals of time, with a display or a system to which a mechanical display can be incorporated. Such watch movements shall not exceed 12 mm in thickness and 50 mm in width, length or diameter.
- 4.- Except as provided in Note 1, movements and other parts suitable for use both in clocks or watches and in other articles (for example, precision instruments) are to be classified in this Chapter.

GENERAL

This Chapter covers certain apparatus designed mainly for measuring time or for effecting some operation in relation to time. It includes timepieces suitable for carrying on the person (watches and stop-watches), other timepieces (ordinary clocks, clocks with watch movements, alarm clocks, marine chronometers, clocks for motor vehicles, etc.), and also time recording apparatus, time interval measuring instruments and time switches; in general, it also covers parts of these articles.

The articles of this Chapter may be of any material (including precious metals) and they may be decorated or trimmed with natural or cultured pearls, or natural, synthetic or reconstructed precious or semi-precious stones (see the Explanatory Notes to headings 91.11 and 91.12).

The classification of clocks and watches combined with some other object (an article of furniture, a lamp, inkstand, paperweight, writing-pad, tobacco jar, cigarette or cigar lighter, handbag, powder compact, cigarette case, propelling-pencil, walking-stick, etc.) is governed by the Rules for the Interpretation of the Nomenclature. The mere inclusion of internal lighting does not remove clocks or watches from this Chapter.

In addition to the exclusions specified in the Explanatory Note to each heading, this Chapter **excludes**, *inter alia* :

- (a) Sundials and hour-glasses (classified according to their constituent material).
- (b) Musical automats (mechanical singing birds and the like) and musical boxes without time dials (**heading 92.08**).
- (c) Toy clocks and watches and Christmas tree accessories in the form of clocks or watches, such as those without clock or watch movements (**heading 95.03 or 95.05**).
- (d) Automata and other animated displays of a kind used for shop window dressing (**heading 96.18**).
- (e) Works of art, collectors' pieces, and antiques (**Chapter 97**).

A clock or watch is composed of two main parts : the **movement** and the **container** for the movement (case, cabinet, etc.).

Mechanical watch or clock movements consist of the following parts :

- (1) The **body or frame** usually consists of the plate and the bridges. The plate, to which the bridges are fixed by screws and pins, is the basic support of the movement. Some bodies or frames incorporate, apart from the bridges and the plate proper, one or more additional plates (called, for example, dial plate, lower plate cover) intended to hold in place certain parts of the movement (motion work, alarm mechanism, etc.).
- (2) The **device which drives the movement**, usually consisting of weights or springs; the source of energy may also be electricity, or changes in temperature or atmospheric pressure.
- (3) The **train**, i.e., the succession of toothed wheels which connects the driving device to the escapement and enables time to be measured.
- (4) The **motion work**, i.e., the series of parts which links the motion of the minute hand to that of the hour hand. In movements with a dial plate, the motion work is generally located between the dial plate and the plate.
- (5) The **escapement**; this provides the pendulum or balance and hairspring with the necessary energy and ensures that the motion of the train is controlled.
The most usual types of escapement are the anchor or lever, the pin-pallet, the cylinder and the detent.
- (6) The **regulating device**; this regulates the motion produced by the driving mechanism. It consists of a pendulum, a balance-wheel and hairspring combination, a tuning fork, a piezo-electric quartz crystal or any other system capable of determining intervals of time.
- (7) The **winding and hand setting mechanism** (operated by a push piece, a draw piece, or a rocking bar, etc.).

The assembled movement, together with the dial and hands, is fitted in the container or case.

The balance-wheel, the escapement parts and the train parts are finely pivoted. In the cheaper types of clocks and watches, they are pivoted directly in the metal of the plate and bridges, but in better instruments the bearings are jewelled to resist wear.

Clocks and watches may be equipped with a striking work, an alarm mechanism or a set of chimes. Each of these devices requires a special movement.

Mechanical clocks and watches may be wound by hand, by electricity or automatically.

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The apparatus of this Chapter may be electrical (including electronic), e.g. :

- (A) **Clocks using a dry battery or an accumulator with a low running reserve** (of the order of a few minutes). These clocks have a conventional balance-wheel and hairspring combination or a pendulum, the spring being periodically rewound by an electro-magnet.
- (B) **Clocks connected to the mains, with a high running reserve** (several hours). These are also equipped with a normal balance-wheel and hairspring combination or pendulum, the spring or weight being rewound periodically by an electric motor (synchronous, induction, etc.).
- (C) **Pendulum clocks driven from a dry battery, an accumulator or the mains**; the pendulum is kept swinging by means of an electro-magnetic device.
- (D) **Clocks and watches powered by a dry battery or an accumulator, with a regulating device** (tuning fork, piezo-electric quartz crystal, etc.) which is kept oscillating by an electronic circuit.
- (E) **Synchronous motor clocks**. These are connected to a controlled frequency current and therefore consist solely of the motor and the train, without a controlling device.

Electric clock systems are dealt with more specifically in the Explanatory Note to heading 91.05.

Some electric clocks are equipped with devices for setting them to the correct time by remote control.

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For the purposes of Note 3 to this Chapter, which defines watch movements, the following methods of measurement apply :

(a) **Measurement of thickness**

The thickness of a movement is the distance from the outer plane of the dial support (or the visible surface of the display if the latter is incorporated in the movement) to the furthest opposite outer plane, without taking account of any screws, nuts or other fixed parts projecting beyond that plane.

(b) **Measurement of width, length or diameter**

As appropriate, the width, length or diameter (which are determined by their axis of symmetry) is to be measured without taking the winding spindle or crown into consideration.