

91.06 - Time of day recording apparatus and apparatus for measuring, recording or otherwise indicating intervals of time, with clock or watch movement or with synchronous motor (for example, time-registers, time-recorders).

9106.10 - Time-registers; time-recorders

9106.90 - Other

Provided they are operated by a movement of the watch or clock type (including secondary or synchronous motor clock movements) or by a synchronous motor with or without reduction gear, this heading covers :

(i) A wide range of apparatus for recording the time of day at which some action or operation is effected;

and (ii) Apparatus, **not** elsewhere specified, for measuring, recording or otherwise indicating intervals of time.

Such apparatus may have dials indicating hours, minutes or seconds. However, certain instruments of this heading, such as time-registers, watchmen's tell-tales and pigeon-timers, are sometimes constructed without dials.

The heading includes :

- (1) **Time-registers** for recording the arrival and departure of employees in factories, workshops, etc. These consist of a case containing a clock, a date marker actuated by the clock movement, a hammer and an inking ribbon. The employee inserts his card in the machine and operates the hammer either mechanically or electrically, thus stamping the card with the exact date, hour and minute. The number of hours he has been present can then be calculated from the card. Mechanical eight-day clocks and electric clocks are most commonly used. They may be independent, connected to a master clock or themselves serve as master clocks. In the last case, they sometimes set off a striking mechanism or a siren (see the Explanatory Note to heading 91.05).
- (2) **Time-recorders** similar to the time-registers described in (1) above but marking also the month, the year, a serial number or other indications; some of these instruments are also equipped with a device for totalling up working hours (e.g., per day or per week). These instruments are also used for stamping mail or accounting documents, dating costing slips, etc.
- (3) **Watchmen's tell-tales**, usually portable. These have a clock movement actuating a paper dial or a dating appliance. By means of a special key, the watchman records his periodical visits (hour, minute, number of post) at the control points by perforating or stamping the revolving dial, or by printing with an inking tape on a paper strip.
- (4) **Pigeon-timers** for recording the arrival of homing pigeons at the end of a race. These are portable cases containing a clock, a drum for the rings and a device which marks the day, hour, minute and second of arrival either by printing on a tape, or by perforating a disc or paper band.
- (5) **Master frequency control instruments** used with systems of synchronous motor clocks, time switches, etc. These instruments have a dial indicating the standard time, the time of the synchronous motor clock and the time difference between the two. They consist essentially of a mechanism for indicating the time differences, a secondary clock movement, controlled by a master clock and indicating the standard time, a synchronous motor clock movement and various contact, signalling or regulating devices.

91.06

- (6) **Timers** for measuring the duration of short-lived phenomena limited by opening and closing electric contacts. These timers are used for checking electricity supply meters, for measuring the speed of human reactions, etc. Their principal parts are a synchronous motor, an electro-magnetic coupling and a meter with a dial indicating seconds and hundredths of seconds; the whole is contained in a case. When the instrument is in operation, the synchronous motor runs continuously and is coupled to the meter for the duration of the phenomenon.

Electric or electronic timers without a movement of the clock type or a synchronous motor are excluded (heading 90.31).

- (7) **Table or stadium timers for sporting events**, indicating time of arrival or playing time in minutes and seconds.

Stadium clocks with clock dials are, however, excluded (heading 91.05).

- (8) **Stop-clocks and other timers used for measuring the duration of some processes**. These have a seconds dial, a dial for totalling minutes, and a lever for starting and stopping.

- (9) **Timers for registering the duration of telephone conversations**; these operate like stop-clocks and may have a striking mechanism.

- (10) **Time-recorders for sporting events**, with synchronous motor movement, usually controlled by a quartz crystal oscillator. These can record time correctly to one hundredth of a second, and also the order of arrival or departure; they may operate either photographically, or by printing on or perforating a paper tape moving at constant speed.

Items of auxiliary sporting timekeeping apparatus (stands and holders for timers, starting gates, photoelectric cell devices, acoustical, electric or radio telegraphic transmission instruments, etc.) are classified in their own appropriate headings.

- (11) **Process timers** for short periods of time. These ring a bell after a given number of minutes (usually up to 60); they are equipped with an alarm movement and a dial normally bearing the figures 0-10, 0-30 or 0-60. They are used in all fields where the duration of a process must be controlled.

However, time switches, which differ from process timers in that instead of actuating a striking system at a given time, they "make" or "break" an electric circuit, are excluded (heading 91.07).

- (12) **Secondary clocks** (operated by a master clock) with only minute and seconds hands or with seconds hands alone (for regulating watches, etc.).

- (13) **Billiards meters** which employ a clock movement to indicate the time in play or the amount payable based on that time.

- (14) **Time clocks for chess-players**, consisting of two clock or watch movements with dials indicating time in hours and minutes, and two buttons or levers by which the movements can be started and stopped.

The heading excludes the following when presented separately : cases for the apparatus described above (classified either in heading 91.12 or in their respective headings, see the Explanatory Note to heading 91.12), watch or clock movements (headings 91.08 to 91.10), and parts of such movements (generally heading 91.10 or 91.14).

The heading also excludes :

- (a) Instruments and apparatus of **Chapter 90**, whether or not having a movement of the watch or clock type, but not equipped with a time dial, such as recording tide gauges and seismographs (heading 90.15), barographs and thermographs (heading 90.25), manometers (heading 90.26), gas, liquid or electricity supply or production meters (heading 90.28), revolution counters, production counters, speed indicators, tachometers, taximeters, pedometers and instruments and apparatus for measuring short time intervals by counting (heading 90.29), opisometers (heading 90.31).

- (b) Chronometer watches, chronograph watches and stop-watches (heading 91.01 or 91.02).

- (c) Metronomes (heading 92.09).