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90.06 - Photographic (other than cinematographic) cameras; photographic flashlight apparatus and flashbulbs other than discharge lamps of heading 85.39.

- 9006.30 - Cameras specially designed for underwater use, for aerial survey or for medical or surgical examination of internal organs; comparison cameras for forensic or criminological purposes
- 9006.40 - Instant print cameras
 - Other cameras :
- 9006.51 -- With a through-the-lens viewfinder (single lens reflex (SLR)), for roll film of a width not exceeding 35 mm
- 9006.52 -- Other, for roll film of a width less than 35 mm
- 9006.53 -- Other, for roll film of a width of 35 mm
- 9006.59 -- Other
 - Photographic flashlight apparatus and flashbulbs :
- 9006.61 -- Discharge lamp ("electronic") flashlight apparatus
- 9006.69 -- Other
 - Parts and accessories :
- 9006.91 -- For cameras
- 9006.99 -- Other

(I) PHOTOGRAPHIC (OTHER THAN CINEMATOGRAPHIC) CAMERAS

This group covers all kinds of photographic cameras (**other than** cinematographic cameras), whether for professional or amateur use, and whether or not presented with their optical elements (objective lenses, viewfinders, etc.). Photographic cameras are those in which the exposure of a chemical based film (e.g., silver halide), plate or paper to the image or light from the camera's optical system causes a chemical change to the film, plate or paper. Further processing is required to create a viewable image.

There are many different types of **cameras**, but the conventional types consist essentially of a light-tight chamber, a lens, a shutter, a diaphragm, a holder for a photographic plate or film, and a viewfinder. Variations in these essential features characterise the different kinds of cameras, such as :

- (A) **Box cameras**; these are the simplest type.
- (B) **Folding or collapsible cameras**, for studio or amateur use.
- (C) **Reflex cameras**. In the majority of these cameras, the image received by the objective lens is reflected from a mirror to the viewfinder by means of a special prism (single lens reflex). Other apparatus of this type have a second objective lens from which the image is reflected onto a screen at the top of the camera (twin lens reflex).

(D) **Pocket cameras** which generally use film cassettes; however, some types use discs.

These cameras may also incorporate an automatic focusing system, a motor drive for winding film, an integral flash and a liquid crystal display all of which may be controlled by a microprocessor.

The cameras of this group include :

- (1) **Stereo cameras**, equipped with two identical lenses and a shutter which exposes two images simultaneously.
- (2) **Panoramic cameras**, used to photograph a wide panorama or a long line of people. The camera can be rotated at a uniform rate about a vertical axis, the exposure being made by a vertical slit which travels across the plate or film.
- (3) **Recording cameras**. These cameras generally have no shutter, the film moving continuously behind the lens. They are usually intended for combining with other apparatus (for example, cathode-ray oscilloscopes) for recording transitory and ultra-rapid phenomena.
- (4) **Instant print cameras (portable or cabinet type) in which processing is carried out automatically after exposure** so that the finished photograph is available in a short time. Coin-, token- or magnetic card operated cabinet type instant print cameras are classified here and not in heading 84.76.
- (5) **Cameras with wide angle lenses** to cover a very wide field. Special lenses are used to give an all round view of the horizon. Extreme wide-angle cameras swing the lens during exposure in synchronisation with the shutter.
- (6) **"Disposable" cameras**, also known as "single-use" or "one-time use" cameras, which are pre-loaded with film which is generally not replaced after use.
- (7) **View cameras**. These consist of a flexible bellows which is attached to the front and rear panels that swing on a rigid base. The front panel holds the lens mounted on a board and the rear panel contains a film holder. The bellows connects the lens board to the film holder and allows them to move freely in relation to one another.
- (8) **Cameras with air- and watertight cases** for underwater photography.
- (9) **Cameras with automatic shutter release** (such as those with an electronically operated shutter) controlled by a watch movement designed to permit a series of shots to be taken at regular intervals. This type also includes cameras designed for photographing subjects without their knowledge; they are fitted with a photoelectric cell placed in the circuit of the shutter release, and some are in the form of a small wrist-watch.
- (10) **Aerial survey cameras** designed to take successive pictures at predetermined time intervals so that a strip of ground is covered by overlapping photographs. Some aerial survey cameras have multiple lenses to take vertical and oblique views. This group includes cameras for aerial photogrammetry.

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- (11) **Cameras for terrestrial photogrammetry** consisting of two cameras, interconnected and fixed on a tripod, for taking photographs simultaneously. These cameras are mainly used for archeological research, the upkeep of monuments or at road accidents.
- (12) **Comparison cameras for forensic or criminological purposes.** With these cameras two articles can be photographed simultaneously and the images compared; these are used for verifying fingerprints, checking forgeries, etc.
- (13) **Cameras for medical or surgical purposes**, e.g., those introduced in the stomach, for examination and subsequent diagnosis.

The heading **does not cover** video cameras used for these purposes (**heading 85.25**).

(14) **Cameras for microphotography.**

- (15) **Cameras used for copying documents** (letters, receipts, cheques, drafts, order forms, etc.), including those recording on microfilms, microfiches or other microforms or on sensitive paper.
- (16) **Laser photoplotter for creating latent "printed circuit board" images on photosensitive film, generally from digital formats**, (which is subsequently used in the production of printed circuit boards) **by means of a laser beam**. It is comprised of a keyboard, a screen (cathode ray tube), a raster image processor and an image reproducer.
- (17) **Cameras used for composing or preparing printing plates or cylinders** by photographic means. This apparatus may be of considerable size and may differ considerably from the other types of photographic cameras mentioned above. This group includes :
 - (i) Vertical and horizontal process cameras, three-colour cameras, etc.
 - (ii) Cameras which photograph blocks of type previously set by hand or by machine.
 - (iii) Apparatus to select the primary colours in illustrations (photographs, transparencies, etc.), consisting essentially of an optical device and an electronic calculator, designed for the production, by photographic means, of screened and corrected negatives which will be used in the preparation of printing plates.
 - (iv) Laser photoplotter for creating latent images on photosensitive film, generally from digital formats, (e.g., colour transparencies, which are used to reproduce digital artwork with continuous-tone) by means of a laser beam. To reproduce an image, the primary colours (cyan, magenta and yellow) are first selected, whereupon each colour is separately turned into rasterized data by an automatic data processing machine or raster image processor. The raster image processor may be incorporated in the photoplotter.

Apparatus for preparing printing plates or cylinders by a photocopying or thermocopying process are excluded from this heading and fall in **heading 84.43**. Photographic enlarging or reducing apparatus fall in **heading 90.08**.

(II) PHOTOGRAPHIC FLASHLIGHT APPARATUS AND FLASHBULBS

This group covers photographic flashlight apparatus and flashbulbs which are used for professional or amateur photography, in photographic laboratories or in photogravure work.

These devices produce very bright light for a very short duration (flash) and are thus distinguished from photographic lighting equipment of heading 94.05.

Photographic flashlighting can be obtained either by means of electrically or mechanically ignited devices or by means of discharge lamps (see Explanatory Note to heading 85.39).

Included here are :

(1) Separate flashbulbs.

In these the light is produced by a chemical reaction initiated by an electric current. A flashbulb can be used only once. It consists of a bulb enclosing the active substance and the igniting device (either a filament or electrodes).

The most common types of flashbulbs are :

- (i) Oxygen-filled bulbs containing wire or finely shredded strip of, for example, aluminium, zirconium, aluminium-magnesium alloy or aluminium-zirconium alloy.
- (ii) Bulbs in which a ball of paste, consisting of one or more metal powders (e.g., zirconium) mixed with an oxidising agent, is attached to each of the electrodes.

(2) Flashcubes.

These are devices in the form of a cube containing four flashbulbs and four reflectors. Each bulb in the cube is ignited in turn either electrically, or mechanically by percussion of an explosive material.

(3) Battery flashlamps.

Such lamps are fitted with an electric battery and an electrically ignited flashbulb or flashcube, and are usually operated by a synchroniser in the camera shutter.

The apparatus using discharge lamps is more complex. Whether built as a single unit or comprising several elements, it usually consists of :

- (A) A mains, battery or accumulator-operated power pack; this works on the principle of the charge and discharge of a condenser and is usually controlled by a synchroniser incorporated in the camera shutter. Some types may have provision for varying the flash intensity and duration.
- (B) The discharge lamp with its stand and reflector.

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(C) A control lamp.

(D) A socket for connecting extra flashlamps.

Power packs without the flashlamp stands and reflectors but comprising, besides the discharge elements, the flash release device and (possibly) auxiliary equipment for varying the intensity and duration of the flashes, fall in this heading as incomplete apparatus having the essential character of the complete apparatus.

PARTS AND ACCESSORIES

Subject to the provisions of Notes 1 and 2 to this Chapter (see the General Explanatory Note), this heading also covers parts and accessories of the goods of this heading. Such parts and accessories include : camera bodies; bellows; ball and socket mounting heads; shutters and diaphragms; shutter (including delayed action) releases; magazines for plates or films; lens hoods, specialised stands or bases for forensic photography to which a camera is fitted (these often include discharge lamps and an adjustable calibrated mast for varying the height of the camera).

On the other hand, monopods, bipods, tripods and similar articles are, however, **excluded** (heading 96.20).

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The heading **does not apply** to apparatus consisting of an instrument equipped to record images by photographic means, but essentially designed for some other purpose, e.g., a telescope, microscope, spectrograph, stroboscope. A camera presented separately, however, even if it is a specialised part of another instrument (telescope, microscope, spectrograph, photo-theodolite, stroboscope, etc.) is classified in this heading and not as a part of that instrument.

The heading also **excludes** :

- (a) Halftone or similar printing screens (headings 37.05, 90.01, 90.02, etc., as the case may be).
- (b) Photocopying or thermocopying apparatus (heading 84.43).
- (c) Digital cameras (heading 85.25).
- (d) Digital camera backs (heading 85.29).
- (e) Electric flashlight discharge lamps (heading 85.39).
- (f) Photographic enlargers and reducers of heading 90.08.
- (g) Electron diffraction apparatus (heading 90.12).
- (h) Photographic rangefinders (heading 90.15), exposure meters (heading 90.27), whether or not designed to be mounted on cameras.
- (ij) X-ray diffraction cameras (used in conjunction with X-ray apparatus for the examination of crystals), radiography apparatus (heading 90.22).