



HARMONIZED SYSTEM  
REVIEW SUB-COMMITTEE

-  
22<sup>nd</sup> Session  
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NR0116E1  
(+ Annex)  
O. Eng.

Brussels, 24 July 2000.

POSSIBLE AMENDMENTS TO THE NOMENCLATURE  
AND EXPLANATORY NOTE TO HEADING 84.42

(Item III.B.6 on Agenda)

Reference documents :

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| 40.266 (HSC/17)                      | 42.105 (HSC/21)                      |
| 40.726 (HSC/18)                      | 42.119 (HSC/21)                      |
| 40.600, Annex IJ/6 (HSC/18 - Report) | 42.750, Annex G/30 (HSC/22 – Report) |
| 40.885 (HSC/19)                      | NC0048E1                             |
| 41.124 (HSC/19)                      | NC0090E2, Annex H/8 (HSC/23)         |
| 41.100, Annex G/19 (HSC/19 - Report) | NC0139E1                             |
| 41.315 (HSC/20)                      | NC0160E2, Annex G/16 (HSC/24)        |
| 41.598 (HSC/20)                      | NC0196E1                             |
| 41.600, Annex F/20 (HSC/20 - Report) | NC0250E2, Annex H/6 (HSC/25)         |
| 42.057 (HSC/21)                      |                                      |

I. BACKGROUND

1. At its 24<sup>th</sup> Session, the Committee examined the classification of imagesetters and ink-jet printers and the possible amendment of the Explanatory Note to heading 84.42 on the basis of Docs. NC0048E1 and NC0139E1.
2. In Doc. NC0048E1, the Secretariat had suggested that one of the questions to be answered was whether film image recorders, also known as “recorders” or “imagesetters”, could be regarded as “Machinery, apparatus and equipment ... for type-founding or type-setting, for preparing or making printing blocks, plates, cylinders or other printing components” within the meaning of heading 84.42.
3. Machines or apparatus for type-founding or type-setting may still be used, for example, in developing countries, but they are no longer manufactured. It was the view of the Secretariat that imagesetters could not be regarded as machines or apparatus for type-setting. Consequently, the Secretariat concluded that “machines, apparatus and equipment for type-founding or type-setting” and all the equipment related to these articles should be deleted from the legal texts and also from the Explanatory Notes. Furthermore, the

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Secretariat concluded that some of the equipment mentioned in the Explanatory Notes still exists but a different process may be used today; therefore, those items needed updating. In order to do so, it was the Secretariat's opinion that substantial input from industry experts would have to be obtained. Accordingly, the Secretariat suggested that the updating of heading 84.42 and its Explanatory Note be undertaken in the context of the next HS review cycle on the basis of input received from administrations.

4. The Committee, at its 24<sup>th</sup> Session, decided that no deletions should be made to the Explanatory Note to heading 84.42 at that time. It did, however, agree with the Director's suggestion that the updating of heading 84.42 and its Explanatory Note be undertaken in the context of the next Review Cycle.

## II. SECRETARIAT COMMENTS

5. The Secretariat has reproduced, in the Annex to this document, the present text of heading 84.42 and its Explanatory Note. The Secretariat omitted all the "bold" references found in the present Explanatory Note, in order to facilitate the presentation of the Secretariat's proposal. The "bold" text found in the Annex to this document is the text which the Secretariat feels is obsolete and could be deleted. In addition, the Secretariat would draw the Committee's attention to the exclusions found on the last pages of this document. The Secretariat recommends deleting the exclusions highlighted in bold for the reason that it believes that the equipment is no longer in use and not because it feels that such equipment should be classified in heading 84.42.
6. The Secretariat would suggest that, since the time between the publication of the document and the next RSC meeting is very short, that the discussion at RSC/22 be of a preliminary nature. A more in-depth discussion could be held at RSC/23. However, the Secretariat believes that it is important to begin discussion of this issue as soon as possible and, as a result, has provided its views in order to stimulate discussion. For its part, the Secretariat will attempt to contact experts within industry circles in order to gain insight as to (i) whether industry agrees with the Secretariat's suggested deletions; (ii) has any further suggestions for deletions; and (iii) whether industry has suggestions as to new equipment that could be added to the texts (e.g., equipment that replaces some of the processes currently listed).

## III. CONCLUSION

7. Administrations are invited to review the Secretariat proposals for deletion of both legal and Explanatory Note texts in heading 84.42, which it feels are obsolete. The Secretariat would suggest that administrations consult with their industry with a view to determining whether the proposed deletions are valid and to receive industry input as to new types of equipment and or processes that should be added to the legal text and Explanatory Note.

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## PRESENT TEXT OF HEADING 84.42 AND ITS EXPLANATORY NOTE

### SECRETARIAT PROPOSAL

The text in bold highlights parts of the heading text and its Explanatory Note which the Secretariat believes could be deleted, because it represents obsolete equipment.

84.42 - MACHINERY, APPARATUS AND EQUIPMENT (OTHER THAN THE MACHINE-TOOLS OF HEADINGS 84.56 TO 84.65), **FOR TYPE-FOUNDING OR TYPE-SETTING**, FOR PREPARING OR MAKING **PRINTING BLOCKS**, PLATES, CYLINDERS OR OTHER PRINTING COMPONENTS; **PRINTING TYPE, BLOCKS**, PLATES, CYLINDERS AND OTHER PRINTING COMPONENTS; **BLOCKS**, PLATES, CYLINDERS AND LITHOGRAPHIC STONES, PREPARED FOR PRINTING PURPOSES (FOR EXAMPLE, PLANED, GRAINED OR POLISHED).

**8442.10 - Phototype-setting and composing machines**

**8442.20 - Machinery, apparatus and equipment for typesetting or composing by other processes, with or without founding device**

8442.30 - **Other** Machinery, apparatus and equipment

8442.40 - Parts of the foregoing machinery, apparatus or equipment

8442.50 - **Printing type, blocks**, Plates, cylinders and other printing components; **blocks**, plates, cylinders and lithographic stones, prepared for printing purposes (for example, planed, grained or polished)

Apart from certain exclusions referred to later, this heading includes :

- (1) **Printing type and the printing parts of printing machinery**, for example, **separate characters, plates, blocks and cylinders**, engraved or otherwise prepared for printing, used to print texts or illustrations (by hand or by the machines of heading 84.43); and prepared lithographic stones, cylinders **blocks** and plates (i.e., those prepared so as to be suitable for engraving or otherwise receiving an image for subsequent use in printing).
- (2) The machines, apparatus and accessories used to make the type or other printing parts referred to above, or used to assemble (compose or set) it for use in printing, whether by hand or mechanically.

This heading covers equipment used in the printing of texts, illustrations or repetitive designs, etc., whether on paper, textiles, linoleum, leather or on other materials, by **printing processes, viz. :**

- (I) Relief printing: **by means of type characters, stereotype or electrotpe plates, wood engravings, or** by using relief photo-engraved plates. In these processes, the relief parts of the type are inked.
- (II) Planographic printing: by lithography, photo-lithography or by offset printing. The printing ink is applied only to certain specially prepared parts of the plane surface of the printing plate, etc. This category of printing also includes stencilling.

- (III) Intaglio printing : by photogravure or rotogravure, or by means of etched or engraved metal plates. The printing ink is accumulated in the engraved or etched parts.

**(A) PRINTING TYPE, BLOCKS, PLATES, CYLINDERS  
AND OTHER PRINTING COMPONENTS;  
BLOCKS, PLATES, CYLINDERS AND LITHOGRAPHIC STONES,  
PREPARED FOR PRINTING PURPOSES  
(FOR EXAMPLE, PLANED, GRAINED OR POLISHED)**

This heading includes :

- (1) **Printing type of all kinds (individual letters, figures, signs, florets, ornaments, rules, etc.), of wood, metal lead-tin antimony alloys, brass, etc.) or plastics, usually for hand composition. Small blocks which do not actually print, but which are inserted in the composition to provide spaces (furniture and spacing materials) are also included in this group.**
- (2) **Typographic plates (clichés), lead castings in one block, flat or semi-cylindrical (stereotypes), often electroplated with copper, nickel or chromium. They are obtained by making a casting of a paperboard or paper pulp flong previously moulded from a hand-composed block of type (forme). Other plates called "electros" are obtained by electroplating a wax or plastic mould of the forme or of the relief plate to be reproduced; the metal shell obtained in this way is then filled with lead and nailed to a wooden supporting plate.**

**Similar plates are produced in plastics by moulding the plastics over flongs in heated presses.**

- (3) **Photogravure plates. In the manufacture of these plates, the matter to be printed (usually illustrations) is photographically reproduced, using half-tone screens for shade illustrations, and then transferred on to a copper or zinc plate which is then acid etched. The plates are usually nailed to a wooden support, with or without a lead lining.**
- (4) Relief or intaglio plates engraved by hand, mechanically or by acid. These may be of wood, linoleum, copper, steel, etc.
- (5) Lithographic stones. The illustration is either hand-drawn or photographically transferred and prepared with acid.
- (6) Offset printing plates of zinc or aluminium or similar flexible metal sheets on which the design is reproduced in the flat, i.e., neither in relief nor intaglio.
- (7) Engraved or etched cylinders.
- (8) Plates and dies for relief stamping or printing, e.g., for machines which emboss, with or without also inking, letter heads, visiting cards, etc.

Provided they have been treated so as to render them suitable for engraving or impressing, lithographic stones, **wooden blocks**, metal plates and cylinders, even though not engraved or impressed, are also included in this heading, e.g.:

- (9) Planed or grained lithographic stones.
- (10) Prepared wood blocks for the manufacture of wood-cuts. These are generally small plates, perfectly planed to a thickness equal to the height of printing type.**
- (11) Metal plates or sheets prepared for engraving (by planing, graining or polishing).
- (12) Perfectly polished or grained surface metal cylinders. These cylinders, usually of cast iron, are generally electroplated with copper, or else have a copper covering consisting of assembled removable sleeves.
- (13) Metal or plastic masters for use on office-type offset printing machines. The top edge of the sheets has usually been processed to permit attachment to the drum of the machine.

Sensitised plates (e.g., consisting of metal or plastics, coated with a sensitised photographic emulsion, or of a sheet of photosensitive plastics, whether or not affixed to a support of metal or other material) are excluded (heading 37.01).

**(B) MACHINERY, APPARATUS AND EQUIPMENT (OTHER THAN  
THE MACHINE-TOOLS OF HEADINGS 84.56 TO 84.65)  
FOR TYPE-FOUNDING OR TYPE-SETTING,  
FOR PREPARING OR MAKING PRINTING BLOCKS, PLATES,  
CYLINDERS OR OTHER PRINTING COMPONENTS**

**Type-founding may be a hand operation, or may be done mechanically by means of more or less complex machines. The apparatus and machines covered include:**

- (1) Matrices, small plates, usually of copper or nickel, impressed by means of a punch. They are used for casting separate printing types.**
- (2) Tables for levelling, by hand planing, the face of printing type. These consist essentially of a perfectly smooth table slit down the centre and fitted with a clamping device which holds the type in place.**
- (3) Automatic type-founders. In these the printing type is made letter by letter, but is not set. They usually consist of an electrically heated crucible containing the molten metal, of a mould cooling device to accelerate the hardening, and of mechanisms for planing and levelling the type.**
- (4) Type-casting machines for rules, spacing material "furniture", etc., operating by extrusion.**
- (5) Composing sticks (or setting sticks) used to start the composition, and on which one or more lines of type are set by hand. They consist mainly of a small well planed wooden or metal plate, with flanges on two adjacent sides and often with a mobile clamping slide. The heading includes galleys, similar, but larger, which hold the type for a whole page.**
- (6) Chases, cast iron or steel frames to hold several pages for printing. One, two or four pages are held in place in the chase by means of metal quoins (special**

metal wedges) or by mechanical wedging devices (nut or screw type, etc.) which also fall in this heading.

In addition to the above-mentioned type-founding and type-setting machines and apparatus, there is a whole group of other machines which mechanically cast the type and also set it. This is done either as two distinct operations on two different but complementary machines (the first machine produces a perforated paper band which controls the second machine whose function is to cast the type either separately or in line blocks), or as one operation on the same machine. These machines, often very complex, include:

- (7) Casting and setting machines for separate types (monotype) which, operating from a band previously perforated on a precomposing machine, select, by means of pneumatic relays, special matrices contained within the machine which produces the individual type characters and sets them in a galley (itself incorporated in the machine).

These machines are used in conjunction with a precomposing machine having a keyboard perforator which produces the precomposition on a paper tape. These precomposing machines are also classified here.

- (8) Keyboard machines for casting and setting separate types, all operations being carried out on the same machine (Rototype, etc.).
- (9) Type-founders for line-set type. The matrices, after being set in lines by hand, are incorporated in the machine which casts the type and delivers it in the form of a line of type (slug).
- (10) Machines for setting and founding lines of type. These are complex keyboard machines of various types (Intertype, Linograph, etc.) which both set and cast the type in the form of lines on the same machine. Some of these machines are fitted with a device to enable them to operate from paper bands previously perforated on a separate machine which is also covered by this heading.
- (11) Machines of the office typewriter type, but with justifying devices and multiple fonts, used to type out copies for photographic reproduction, or used with photolithographic or offset printing machines.

In the case of hand set types, when a large number of copies is required, the types themselves are not always used for the printing. Hand or mechanically made lead castings (stereos) or electroplated castings (electros) are used instead. These plates may then be kept for further editions. The equipment used for this purpose includes:

- (12) Special moulding presses used to make mouldings of the forms in paperboard, wax or plastics (flongs).
- (13) The impressed flongs referred to in the previous item.
- (14) Machines for casting stereotyping plates. These are used for casting flat or curved stereos from the moulded flong. Machines with a furnace, to keep the metal in a molten state, remain in this heading provided the furnace is an integral part of the machine.

- (15) Machines for making printing plates by direct reproduction from a document. In these machines, a photocell scans the document, and the impulses transmitted by an electronic device from that cell activate a tool which engraves a plate of plastics.
- (16) Black-leading machines used to black-lead a wax or plastic moulding, which will be used to produce electros by electroplating. The powdered graphite is applied by a set of mobile brushes, the excess black-lead being removed by spraying with water.**

**This heading also includes the machines used in preparing printing blocks, plates and cylinders, e.g. :**

- (17) Machines for acid etching plates or cylinders. These consist of special vats fitted with stirrers.
- (18) Machines for sensitising offset zinc plates (horizontal whirlers), generally fitted with an electric heating device.
- (19) Electrolysis and polishing vats for photogravure cylinders. In these agate polishers smooth out and keep even the layer of copper forming on the revolving cylinder during electrolysis.

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**The heading also includes phototype-setting and composing machines, which compose by successively photographing characters mounted on revolving discs or the face of special matrices or the characters created on a cathode-ray tube by a matrix of very small overlapping dots. The heading also includes composing machines using a laser beam projected onto photographic film.**

**Some of these machines incorporate a keyboard or similar device or are programmed to operate from a paper band or other carrier of coded information, previously produced on a separate machine.**

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The heading covers only phototype-setting or composing machines which actually set type even if the type is photographed after it has been set. However the heading excludes photographic cameras, photographic enlargers or reducers, photographic contact printers and similar photographic apparatus for preparing printing plates or cylinders (Chapter 90), for example :

- (a) Apparatus used for the photographic reproduction of drawings, texts, etc., e.g., vertical or horizontal process cameras; enlarging or reducing apparatus; light tables for planning layouts or for contact printing, half tone or similar screens of glass or plastics finely marked with a close series of lines intersecting at right angles, colour screens, and frames for such screens.
- (b) Apparatus which photographs blocks of type previously set by hand or by machine (including separately presented supplementary photographic devices which convert a normal lead casting type-setting and composing machine into a machine which operates by photographing the matrices as they are set).

## PARTS

Subject to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), the heading also covers parts of the machines of this heading.

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The heading also excludes :

- (a) Stencils of zinc, plastics, cardboard, etc., for use in stencil printing machines (classified according to the constituent material).
- (b) **Special paperboard for making printing flongs (usually heading 48.05, 48.10 or 48.11);** copying or transfer papers, bearing texts or designs for reproduction (heading 48.16).
- (c) Silk screens for silk screen printing, whether or not coated (heading 59.11); metal wire cloth, mounted on a frame, whether or not prepared, for use in screen printing (classified according to the constituent material).
- (d) **Hand punches and other hand tools (heading 82.05).**
- (e) **Type melting furnaces (heading 84.17 or 85.14).**
- (f) **Flong dryers, including drying presses with heated plates** (heading 84.19).
- (g) Marking irons for gilding machines (heading 84.40).
- (h) Metal, stone or wood working machine-tools (for example, matrix planing and finishing machines, machines for planing and cutting rules; disc or ball graining machines; engraving machines; milling cutters; routing machines; trim saws) (headings 84.56 to 84.65).
- (ij) Machines for cutting stencils or embossing sheets of metal, plastics, etc., for use on duplicators, addressing machines, etc. (heading 84.72).
- (k) Type and other printing parts of typewriters, calculating or other machines of headings 84.69 to 84.72 (heading 84.73).
- (l) **Moulds, other than type matrices and moulds forming an integral part of type-founding machines (heading 84.80).**



- (m) **Electro-mechanical hand graining machines (heading 85.08).**
  - (n) **Electrically heated crucibles (heading 85.14).**
  - (o) **Telegraphic or radio equipment for transmitting or receiving the perforation pattern of the type-setting paper bands (heading 85.17, 85.25 or 85.27).**
  - (p) **Measuring or checking instruments (e.g., matrix measuring or controlling instruments, set squares, type gauges and line gauges) (heading 90.17 or 90.31).**
  - (q) **Furniture specialised for printing use, with cases, drawers or trays for type, punches, matrices, etc. (heading 94.03).**
  - (r) **Hand-operated inking rollers (classified according to the constituent material).**
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