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CLASSIFICATION OF IMAGESETTERS AND INK-JET PRINTERS
AND STUDY OF THE EXPLANATORY NOTE TO HEADING 84.42

(Item VII.16 on Agenda)

Reference documents :

40.266 (HSC/17)	41.598 (HSC/20)
40.726 (HSC/18)	41.600, Annex F/20 (HSC/20 - Report)
40.600, Annex IJ/6 (HSC/18 - Report)	42.057 (HSC/21)
40.885 (HSC/19)	42.105 (HSC/21)
41.124 (HSC/19)	42.119 (HSC/21)
41.100, Annex G/19 (HSC/19 - Report)	42.750, Annex G/30 (HSC/22 – Report)
41.315 (HSC/20)	NC0048E1

I. BACKGROUND

1. On 11 August 1999, the Secretariat received the following Note from the United States Administration, on the classification of certain imagesetters and an ink-jet printer used in the printing industry.

II. US NOTE ON THE CLASSIFICATION OF CERTAIN
IMAGESETTERS AND AN INK-JET PRINTER
USED IN THE PRINTING INDUSTRY

2. “The Harmonized System Committee has been asked to consider the classification of certain machines : the SelectSet Avantra 30, the Dolev 4 Press and the AccuSet 1500 Plus. These machines are generally referred to as “imagesetters,” and they are used in the offset printing industry for various well-known prepress operations. The Committee has also been asked to consider the classification of an ink-jet printer, the Iris 3047, which is used in the printing industry to produce proofs for printing projects.

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1. Imagesetters

3. Imagesetters are prepress machines used in most modern printing operations. An imagesetter produces ("sets") text, graphics or other representations ("images") by using raster image processing (RIP) platform to transfer digital data onto photosensitive surfaces. The digital data originates from software-developed images or from scanned images which are converted into digital format by an automatic data processing machine. The three models in question are able to prepare specialized film for use in the production of printing plates or to prepare photosensitive polyester plates for direct use in offset printing.
4. Regardless of the differences in technical specifications among the three machines, the function of each of these imagesetters is to produce a film or a plate for an offset printing process. The AccuSet 1500, a capstan imagesetter, and the SelectSet Avantra 30 and Dolev 4 Press, drum imagesetters, are typical of the machines that have generally replaced the metal typesetters and camera phototypesetters in the prepress operation of a printing facility. Imagesetters function as prepress machines because they function to produce products used to make the plates for printing. They are also able to produce certain printing plates directly. On the one hand, the imagesetters replace the traditional type-setting machinery because they prepare the "type" by writing the images onto a film which will subsequently be the "type" transferred to the plates, and, on the other hand, the imagesetters function to produce certain types of plates used directly for offset printing.

a. Heading 84.42

5. The first group of goods described by heading 84.42 is "machinery, apparatus and equipment (other than the machine-tools of headings Nos. 84.56 to 84.65), for type-founding or type-setting, for preparing or making printing blocks, plates, cylinders or other printing components."
6. The machines described by this text are machines known in the printing industry as "prepress" machines because they do not do the actual "printing" but rather perform a function necessary to the preparation or composition of type, plates or other printing components.
7. The Explanatory Notes to heading 84.42 clearly show that heading 84.42 should include imagesetters. First, and directly on point, it is stated in the second sentence of paragraph four of EN 84.42(B) that "**This heading also includes composing machines using a laser beam projected onto photographic film.**" (Emphasis added.) This description was specifically added by the drafters of the Harmonized System and unmistakably directs attention to the wide range of new-generation prepress machines that fall in heading 84.42. This sentence in EN 84.42 describes the three imagesetters under consideration by this Committee.
8. Second, the EN to heading 84.42 indicates that other machines which do not actually "produce metal type" are included. These machines are, however, essential to the prepress operation. For example, in paragraph two of EN 84.42(B), on page 1336, the Explanatory Note describes a machine which produces punched paper. Punched paper is not type. The punched paper is used to control a machine that casts type. The machine used to make the punched paper is a distinct and separate machine from the typesetting machine. Both, however, are included in heading 84.42.
9. Finally, one key feature of the three imagesetters is that they are also able to produce polyester printing plates. These plates, which typically consist of a polyester base with red-

light sensitive surface, are actual plates used by printing presses. The technical literature, available on the Internet and submitted to the Secretariat as background material, indicates that each of these machines accepts either film or plate as media on which it produces images for printing.

b. Heading 90.06

10. It has been suggested that these machines could be classifiable as photographic cameras in heading 90.06. We disagree with that suggestion.
11. It should be noted that EN 84.42 distinguishes between machines of heading 84.42 (e.g., the imagesetters) and machines which utilize a camera to take pictures of images and, therefore, are photographic cameras of heading 90.06.
12. The Explanatory Note to heading 84.42 makes it clear that certain machines, which are essentially photographic cameras, are excluded. The EN descriptions of such machines indicate that the kind of "typesetting" machines excluded from heading 84.42 are machines that incorporate a camera which takes a picture of pictures, texts, or blocks of type. Examples of other "photographic" equipment are photographic enlargers or reducers and contact printers used for preparing printing plates. The imagesetters do not fall within any of these descriptions.
13. The operative word in heading 90.06 is "camera". A photographic camera is a device which functions to take a picture of an object by means of a lens through which light is passed to a photographic film. Common definitions support this interpretation. For example, in *Webster's Third New International Dictionary* (1993), page 322, a camera is defined as a "lightproof box fitted with a lens through the aperture of which the image of an object is recorded on a light-sensitive material." In the *McGraw-Hill Encyclopaedia of Science & Technology*, Volume 3 (1992) page 177, a camera is defined as a "light-tight box in which an image is formed by a pinhole or lens at one end on a light-sensitive material at the opposite end."
14. The Explanatory Notes to heading 90.06, in describing photographic cameras of that heading, also make numerous references to the presence of a lens through which light passes from an object. The SelectSet Avantra 30, the Dolev 4 Press or the AccuSet 1500 do not incorporate any mechanism, such as a lens, which would enable them to photograph an object, i.e., take a picture of an object, and to record the image of that object on a film or plate. Therefore, Note 1(m) to Section XVI is not applicable.

c. Conclusion

15. The three imagesetters (Avantra 30, Dolev 4 Press and AccuSet Set 1500) are covered by heading 84.42 as machinery for preparing or making printing blocks, plates, cylinders or other printing components. As indicated in the Explanatory Notes to heading 84.42, these are "machines using a laser beam projected onto photographic film". Note 1(m) to Section XVI does not apply because the imagesetters are not covered by any heading within Chapter 90.

2. Ink-jet printer

16. The Committee is also asked to classify an ink-jet printer, the Iris 3047. The question presented is whether the Iris 3047 is classifiable in heading 84.43 as an ink-jet printing machine or in heading 84.71 as an automatic data processing unit.
17. As a result of the amendments to the Harmonized System which came into effect on January 1, 1996, it is clear that the Harmonized System Committee noted that ink-jet printers are classifiable in two different headings. First, there are ink-jet printers which, as output units of ADP machines, were properly classifiable in heading 84.71 as units of ADP machines. Second, there are ink-jet printers that, because of their size, speed, accuracy, color correctness, and media handling capabilities, are of a kind that have a commercial importance and function in the printing industry. As such, these printers are considered to have a specific function of goods of another heading.
18. Technological advances have resulted in the development of new types of printing machines for the print industry, such as the ink-jet printer which are used to produce, among other things, printers' proofs. the Iris 3047 is a drum-type ink-jet printer that stands on the floor and is able to handle images up to 864 x 1189 mm. It accepts multiple types of paper, newsprint, coated acetate, coated fabric, or any flexible, water-accepting medium less than 10 mil in thickness. It weighs 272 kg and measures 1070 x 1520 x 760 mm in height, width and depth. The system controls or user interface is a graphical interface through a host platform (e.g., an ADP machine operating on Macintosh, Windows or Unix). It functions in all prepress environments and supports popular graphic arts file formats (e.g., Adobe PostScript™).
19. Based on the design and function of the Iris 3047, it would be classifiable in heading 84.43 as an ink-jet printing machine, other than those of heading 84.71. GIR 1 is applicable, taking into account Note 5(E) to Chapter 84.”

III. SECRETARIAT COMMENTS

20. In Doc. 42.057, paragraph 6, the Secretariat indicated that the basic functions of the SelectSet Avantra 30, Dolev 4 Press and Accuset 1500 Plus were, in principle, the same. That function is the reproduction of a latent image on a photosensitive medium by a laser beam. In addition, the Secretariat noted that the operating principle was similar to the FIRE 1000, which was classified by the Committee in subheading 9006.59 and which was the subject of a reservation. It was the view of the Secretariat that the SelectSet Avantra 30, Dolev 4 Press and Accuset 1500 Plus equipment should be classified in the same heading as the FIRE 1000.
21. Notwithstanding this view, the Secretariat conducted further research following the 22nd Session of the HSC and would note that while the English text of heading 90.06 reads “Photographic ... cameras; ...” the French text reads “Appareils photographiques; ...”. [“photographic apparatus”]. It is clear that the key word in these texts is “photographic”. “Photographic” derives from “photography”, which is defined in The New Encyclopaedia Britannica (15th Edition, Volume 25, Macropaedia/Knowledge in Depth, page 761) as follows : “Photography (from the Greek *photos* [“light”] and *graphos* [“writing”]) is the recording of visible images by light action on light-sensitive materials.” The “recording of visible images by light action on light-sensitive materials” is exactly the function performed by the apparatus at issue. Consequently, these imagesetters could be regarded as photographic cameras or, in French, “appareils photographiques”.

22. The Explanatory Note to heading 90.06, (I)(14)(i) and (ii), page 1587, describes the operation of cameras that, while larger than common cameras, still operate in a similar fashion (i.e., where the lens is required in order to capture light outside the camera and focus the light onto the film). The Secretariat understands that the equipment in group (iii) of this Explanatory Note operates by having the light “projected” onto the film from inside the camera. Consequently, there is no requirement for a lens that focuses the outside light. When a laser beam is used, such as with the goods under consideration, a focusing lens is not necessary, as the laser beam uses coherent light and, consequently, is capable of projecting the light onto the film in the form of a small dot. This would seem to reflect the natural evolution of technology and the Preamble to the HS Convention states that due regard should be taken to such changes.
23. With respect to classification at the 6-digit level, the Secretariat recalls that the Committee classified the FIRE 1000 in subheading 9006.59. It should be noted, however, that according to the information received from the manufacturer, the SelectSet Avantra 30 has the capability of printing an image directly on a polyester-based printing plate. This would raise the possibility of classifying this particular apparatus in subheading 9006.10. The information available to the Secretariat for the Dolev 4 and the AccuSet 1500 Plus does not indicate that those machines have the possibility of printing an image directly on a printing plate.
24. The Secretariat would draw the Committee’s attention to the fact that classification in subheading 9006.10 is based on whether or not the apparatus can produce the printing plate directly. However, the preparation of printing plates is a process in which the photographic process is only the first step. The camera produces the exposed film and, from this film, printing plates are eventually produced. If this broader interpretation is used, the Committee may also wish to consider classification of the Dolev 4 and the AccuSet 1500 Plus in subheading 9006.10, as cameras “of a kind used for preparing printing plates”.
25. Regarding the Iris 3047, as the United States Administration indicates, the question is whether or not to classify the Iris 3047 in heading 84.71 as a unit of an automatic data processing machine or in heading 84.43 as an ink-jet printing machine.
26. Note 5 (D) to Chapter 84 is applicable. This Note stipulates that, *inter alia*, printers that fulfil the conditions of Note 5 (B)(b) and 5 (B)(c) are, in all cases, classified in heading 84.71. It would seem that the Iris 3047 fulfils these criteria. However, Note 5 (E) to Chapter 84 also, applies if one considers that the specific function of the apparatus is “printing”. In this case, Notes 5 (B) (b) and 5 (B) (c) would be subject to Note 5 (E) and classification in heading 84.43 would seem appropriate.

IV. CONCLUSION

27. The Committee is invited to examine the classification of the SelectSet Avantra 30, the Dolev 4 Press, the AccuSet 1500 Plus and the Iris 3047 equipment, taking into account the arguments put forward by the United States Administration and the comments of the Secretariat in paragraphs 2 to 19 and 20 to 26, respectively.
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