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O. Eng.

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## CLASSIFICATION OF MULTIFUNCTIONAL DIGITAL COPIERS

(Item VII.18 on Agenda)

42.406 (RSC/18)  
42.498 (RSC/18)  
42.500, Annex B/19 (RSC/18 – Report)  
42.750, Annex E (HSC/22 - Report)  
NR0023E1 (RSC/19)  
NR0037E1 (RSC/19)

NC0090E2, Annex IJ/26 (HSC/23 – Report)  
NC0160E2, Annex H/14 (HSC/24 – Report)  
NC0211E1 (HSC/25)  
NC0250E2, Annex H/13 (HSC/25 – Report)  
NC0300E1 (HSC/26)

### I. BACKGROUND

1. On 17 October 2000, the Secretariat received by facsimile the following Note from the US Administration on the classification of certain multifunction digital machines.

### II. NOTE BY THE US ADMINISTRATION ON CLASSIFICATION OF DIGITAL MULTIFUNCTION MACHINES

2. "The US Administration has reviewed the classification of certain multifunction digital machines. We now submit, for consideration by the Committee, the results of our analysis and our conclusions.
3. The Committee has received from the EC information comprised of its domestic regulation and a decision of the EC Court of Justice as the basis for classification in heading 90.09. We would like to share our experience with this merchandise and explain why we have classified this merchandise in heading 84.71 as composite machines whose principal function is performed by the printer component.
4. At the Committee's last session one delegate commented that the Committee's classification decision should be based on the terms of the Nomenclature. We agree. In our view, the key considerations underlying the classification of this merchandise are the meanings of the term "photo-copying apparatus" as used in heading 90.09 and the term "optical reader" as used in heading 84.71.

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5. With regard to all of the devices described in Doc. NC0300E1, the initial question is whether or not these machines perform a function of a machine described in heading 90.09. Not every device which produces a copy will be classified as a photo-copier of heading 90.09. After all, an optical scanner and a printer, devices classifiable in heading 84.71, operate together to produce a copy of what has been scanned.
6. Clearly, therefore, the question concerns the scope of the phrase "photo-copying apparatus incorporating an optical system" as used in heading 90.09.

### **The scope of heading 90.09: photo-copying apparatus**

7. The U.S. Administration has extensively examined the nature of the machines of heading 90.09 and has concluded that all photo-copying apparatus of heading 90.09, whether of electrostatic, contact or thermal design, operate by means of exposing (1) a photosensitive material or surface with (2) light that is reflected directly from the object to be copied. This process uses an "optical image" to produce a copy.
8. An optical image is defined as the reproduction of an object, formed by a lens or mirror system from reflected, refracted, or diffracted light waves. A photo-copying apparatus functions by a process which places an optical image, reflected from the object, onto a photosensitive surface.
9. If the reflected light of the optical image is placed on film or photosensitive paper, it is a direct process. If the reflected light of the optical image is placed on a photosensitive surface prior to transfer to paper, it is an indirect process. In either case, it is the optical image that is exposed on the photosensitive surface.
10. The Explanatory Note to heading 90.09 is especially instructive as to the type of machine that falls within the terms of this heading. On page 1592, the EN states very clearly that these apparatus project an "optical image of an original onto a light-sensitive surface." We believe that it is noteworthy that EN 90.09 (A) only describes photo-copying apparatus as apparatus that project an optical image onto a photosensitive surface.
11. Therefore, the process by which photo-copying apparatus function is a process by which an optical image (reflected light) is exposed onto a photosensitive surface.
12. This leads us to the simple conclusion that the drafters of the EN and the Nomenclature intended the term to mean what was understood at that time and which is still applicable: the term "photo-copying" as used in heading 90.09 requires that an optical image be transferred onto a photosensitive surface.
13. An optical image is one that is in the form of light reflected from an object and is the actual image which is copied onto the photosensitive surface, i.e., the photo-copy produced by the reflected light.

### **Optical readers**

14. By contrast, optical readers or scanners, apparatus with which we all are quite familiar, do not reproduce an optical image. Optical readers operate by a process that is very different from the process used by photo-copying apparatus. The quality and resolution of the images reproduced by an optical reader are not based on the accuracy of an actual optical image. Rather, they are based on the number of electrical receptors on a CCD or

CMOS chip that electronically record individual points of light reflected from the image as it is scanned.

15. Multifunction digital “copiers” incorporate an optical reader. It is the function of the optical reader that enables a multifunction digital machine to record images. Optical readers are specifically named in the text of heading 84.71.
16. An optical reader consists of a light source, mirror, lens and an electronic photoreceptor that converts points of light into electrical signals. It functions to reproduce images of objects by converting individual points of light, reflected from the object, into electrical signals (digital data). This data may either be stored in that form or converted into a printed image and then deleted. Usually, an optical reader is used with an ADP system in order to print the scanned file or “copy” onto paper.
17. However, due to the nature of digital technology, optical readers can also be coupled directly with output devices to print onto paper that which has been scanned or recorded. A document produced by this process would not be a “photo-copy” as that term is used to describe the product of a photo-copying apparatus of heading 90.09.
18. The process used by an optical reader is different from that of a photo-copier. Specifically, there is no reproduction of an optical image. Instead, in these machines (i.e., the optical reader) individual points of light, reflected from an object, are converted into electrical signals, stored in the form of a digital file.
19. For this reason, we conclude that the multifunction digital machines under consideration do not have, nor can they perform, the function of a photo-copying apparatus because they do not incorporate a machine that meets the terms of heading 90.09. They cannot produce a photo-copy from an optical image. They do not operate by the reflection and exposure of an optical image onto a photosensitive surface.
20. These multifunction machines do, however, record images in a manner that is specific to the function of an optical reader of heading 84.71. They operate by scanning and converting individual points of light from an object into a digital data file. This is the process by which optical readers function.
21. Therefore, the ability of these multifunction machines to produce an original document is attributable to the optical reader working in conjunction with the printer. This is not a function of a machine of heading 90.09.

### **Classification of multifunction digital machines**

22. Having concluded that these multifunction digital machines do not perform the function of a photo-copying apparatus of heading 90.09 and, therefore, that heading 90.09 is not relevant to the classification of these machines, it is necessary to determine those functions which are relevant.
23. Each of the multifunction digital machines is a composite machine that consists of several machines which have individual functions. The individual functions are as follows:
  - printing from a digital file received from an ADP machine or the optical reader (printer unit of ADP machine of heading 84.71)
  - scanning images of an object (optical reader of heading 84.71)

- sending or receiving facsimile transmissions (electrical apparatus for line telephony of heading 85.17)

24. These component machines perform functions of machines described in headings 84.71 and 85.17 of Section XVI.

Note 3 to Section XVI states as follows:

3. Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines adapted for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

25. In applying this rule to the composite machines under consideration, we recognize that the seven machines are constructed differently and have different capacities with regard to each function. These differences could affect the determination as to the identifiable principal function and, consequently, the classification of each machine.

26. However, with regard to each of the composite machines under consideration, they all function as a printer. The printer is the one component that is also necessary for the print output of the facsimile and the optical reader. For this reason, classification of these multifunction digital machines would usually be based on the printer component as the component which performs the principal function of the composite machines.

### **Conclusion**

27. The multifunction digital machines are composite machines which perform the functions of two or more machines for the purpose of performing complementary or alternative functions.

28. These composite machines consist of a printer, optical reader and facsimile machine. The functions of these individual machines are formed together, as a whole, to provide complementary or alternative functions.

29. These composite digital machines do not incorporate a photo-copying machine, nor are they capable of functioning as a photo-copying machine because they are unable to produce photo-copies, on a photosensitive material, from the reflected light of an optical image.

30. Classification in the Nomenclature is based on the terms of the headings, and since these machines do not incorporate a photo-copying machine or perform the function of a machine of 90.09, classification in that heading is not relevant. Therefore, heading 90.09 does not merit consideration in the classification of these multifunction digital machines.

31. These multifunction digital machines perform the function of printers, optical readers and facsimile machines. As composite machines, classification is based on Note 3 to Section XVI.

32. The printer function, in most cases, would appear to constitute the principal function of these composite machines. Not only does the printer component perform the printer function, it is also the relevant component which serves as the output for the facsimile and the optical reader."

III. CONCLUSION

33. The Committee is invited to take account of the US Administration's comments when it considers this Agenda Item.

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