

# SECTION H – ELECTRICITY

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## Notes

These Notes cover the basic principles and general instructions for use of section H.

### I. Section H covers:

- (a) basic electric elements, which cover all electric units and the general mechanical structure of apparatus and circuits, including the assembly of various basic elements into what are called printed circuits and also cover to a certain extent the manufacture of these elements (when not covered elsewhere);
- (b) generation of electricity, which covers the generation, conversion and distribution of electricity together with the controlling of the corresponding gear;
- (c) applied electricity, which covers:
  - (i) general utilisation techniques, viz. those of electric heating and electric lighting circuits;
  - (ii) some special utilisation techniques, either electric or electronic in the strict sense, which are not covered by other sections of the Classification, including:
    - (1) electric light sources, including lasers;
    - (2) electric X-ray technique;
    - (3) electric plasma technique and the generation and acceleration of electrically charged particles or neutrons;
- (d) basic electronic circuits and their control;
- (e) radio or electric communication technique;
- (f) the use of a specified material for the manufacture of the article or element described. In this connection, paragraphs 57 to 59 of the Guide should be referred to.

### II. In this section, the following general rules apply:

- (a) Subject to the exceptions stated in I(c), above, any electric aspect or part peculiar to a particular operation, process, apparatus, object or article, classified in one of the sections of the Classification other than section H, is always classified in the subclass for that operation, process, apparatus, object or article. Where common characteristics concerning technical subjects of similar nature have been brought out at class level, the electric aspect or part is classified, in conjunction with the operation, process, apparatus, object or article, in a subclass which covers entirely the general electrical applications for the technical subject in question;
- (b) The electrical applications referred to under (a), above, either general or particular, include:
  - (i) the therapeutic processes and apparatus, in class A 61;
  - (ii) the electric processes and apparatus used in various laboratory or industrial operations, in classes B 01 and B 03 and in subclass B 23 K;
  - (iii) the electricity supply, electric propulsion and electric lighting of vehicles in general and of particular vehicles, in the subsection "Transporting" of section B;
  - (iv) the electric ignition systems of internal-combustion engines, in subclass F 02 P, and of combustion apparatus in general, in subclass F 23 Q;
  - (v) the whole electrical part of section G, i.e. measuring devices including apparatus for measuring electric variables, checking, signalling and calculating. Electricity in that section is generally dealt with as a means and not as an end in itself;
- (c) All electrical applications, both general and particular, presuppose that the "basic electricity" aspect appears in section H (see I(a) above) as regards the electric "basic elements" which they comprise. This rule is also valid for applied electricity, referred to in I(c), above, which appears in section H itself.

### III. In this section, the following special cases occur:

- (a) Among the general applications covered by sections other than section H, it is worth noting that electric heating in general is covered by subclasses F 24 D or H or class F 27, and that electric lighting in general is partly covered by class F 21, since in section H (see I(c), above) there are places in H 05 B which cover the same technical subjects;
- (b) In the two cases referred to under (a), above, the subclasses of section F, which deal with the respective subjects, essentially cover in the first place the whole mechanical aspect of the apparatus or devices, whereas the electrical aspect, as such, is covered by subclass H 05 B;
- (c) In the case of lighting, this mechanical aspect should be taken to cover the material arrangement of the various electric elements, i.e., their geometrical or physical position in relation to one another; this aspect is covered by subclass F 21 V, the elements themselves and the primary circuits remaining in section H. The same applies to electric light sources, when combined with light sources of a different kind. These are covered by subclass H 05 B, whereas the physical arrangement which their combination constitutes is covered by the various subclasses of class F 21;
- (d) As regards heating, not only the electric elements and circuitry designs, as such, are covered by subclass H 05 B, but also the electric aspects of their arrangement, where these concern cases of general application; electric furnaces being considered as such. The physical disposition of the electric elements in furnaces is covered by section F. If a comparison is made with electric welding circuits, which are covered by subclass B 23 K in connection with welding, it can be seen that electric heating is not covered by the general rule stated in II, above.