

# INTERNATIONAL STANDARD

# ISO 9897

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## Freight containers — Container equipment data exchange (CEDEX) — General communication codes

*Conteneurs pour le transport de marchandises — Échange de données sur  
les équipements de conteneurs (CEDEX) — Codes des communications  
générales*

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Reference number  
ISO 9897:1997(E)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 9897 was prepared by Technical Committee ISO/TC 104, *Freight containers*, Subcommittee SC 4, *Identification and communication*.

This first edition of ISO 9897 cancels and replaces the first editions of ISO 9897-1:1990 and ISO 9897-3:1990, which have been technically revised.

Annexes A to H and K, L form an integral part of this International Standard.

Annexes J and M are for information only.

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# Freight containers — Container equipment data exchange (CEDEX) — General communication codes

## 1 Scope

This International Standard specifies general communication codes for container equipment data exchange (CEDEX).

It is intended for business entities for use in communications relating to freight container transactions.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3166:1993, *Codes for the representation of names of countries*.

ISO 6346:1995, *Freight containers — Coding, identification and marking*.

UN/EDIFACT *Draft Directory and Standard Directory*.

## 3 Principle

In ISO 9897, codes are assigned to pieces of information, called "data elements", which are commonly used in transactions relating to freight containers. These data elements are named and defined, and each element is assigned a CEDEX alphabetical or alphanumeric code. Separate code lists for each type of information (damage, component, repair, location, etc.) are maintained. A code may be reused in several different code lists, but a code is never used for more than one data element within a single code list.

The data element may be phrased about material of construction of a container. For example, CEDEX code "LS" in material type code list (Annex E) stands for "wood, soft laminated plank". A code may define the component of the container that is damaged, its location, or its operating defect, depending on which data element is being defined. A selection is made from the appropriate code list to indicate which component, location, or defect, respectively, is chosen. An example of the latter is CEDEX code "MF", drawn from the damage type code list (Annex D), which stands for "motor failure". Other coded data elements indicate essential physical characteristics of the container and information pertinent to the use and management of the container, such as names and addresses of owners.

It can be seen from these examples that the text of a message can be substantially reduced in length by using the CEDEX codes instead of plain language. Use of the CEDEX codes results in messages much reduced in length, transmission time and communication cost, yet conveying information as complete as a much longer plain-language message.

Through proper programming of a computer, a CEDEX-encoded message can be printed out in plain language for the benefit of the communicators, if so desired, or it can be left in its encoded form. The personnel using the code routinely will develop the skill of being able to read messages in coded form; in fact, experience using the code has borne out this assertion. Also, many operators will not require use of all CEDEX codes assigned in ISO 9897, but only a portion of them due to the limited variety of containers and chassis in their domain.

**4 Data elements and codes**

**4.1 Data elements**

Data elements and corresponding code sets required to describe equipment components, their condition, repair methods, etc., are included in the appropriate annex shown in table 1.

**4.2 Code assignments**

**4.2.1 CEDEX codes**

All code assignments of CEDEX shall be taken as obligatory. That is, an operator shall not pick and choose alternative codes unilaterally, nor depart from the established protocol, nor introduce new codes without having registered the codes in accordance with 4.3.

However, two trading partners may agree mutually to use alternative codes if the necessary codes are not included in this International Standard. It is strongly recommended that such codes be registered in accordance with 4.3 as soon as possible after introduction.

**4.2.2 EDIFACT codes**

Code assignments according to Annex A shall taken as obligatory. That is, for electronic data interchange transmission, an operator shall not pick and choose alternative codes unilaterally and shall not use the message types and codes contained in Annex A of ISO 9897-1:1990 (i.e. the first edition of this International Standard).

Note - Annex J is at the moment merely informative; it describes the manner in which a directory of users will eventually be developed. Until the directory is issued, annex J is not a mandatory requirement of this International Standard.

**Table 1 - Data elements and code sets**

| <b>Data elements</b>               | <b>Code set<br/>see annex</b> |
|------------------------------------|-------------------------------|
| Message type                       | A                             |
| Full/empty indicator (container)   | B                             |
| Structural condition (container)   | B                             |
| Repair condition (container)       | B                             |
| Outside coating (container)        | B                             |
| Inside coating (container)         | B                             |
| Damage location                    | C                             |
| Damage type                        | D                             |
| Material type                      | E                             |
| Repair type                        | F                             |
| Measure unit specifier             | G                             |
| Repair size dimension              | G                             |
| Work scale (standard time factor)  | G                             |
| Responsibility (for repair action) | H                             |
| Party identification and location  | J                             |
| Component for container            | K                             |
| Component for chassis              | L                             |

### 4.3 Updating data elements

The *International Intermodal Repairers (IIR)* has been nominated to act as the Registration Authority for the data elements:

International Intermodal Repairers (IIR)  
c/o CEDEX Services International  
450 Sansome St.  
San Francisco, CA 94111  
U S A

Telefax: +1 415 398 3610  
Internet: <http://www.intermodalrepairers.com>

Additional data elements will be added to table 1 at the request of international organizations, ISO/TC 104 member bodies, and approval of TC 104/SC 4. The actual process of registration will be performed by the TC 104/SC 4 Secretariat in consultation with the experts of TC 104 /SC 4/WG 3.

Each additional data element will be allocated an alphabetic or alphanumeric code, not at present used within the same code list covering a type of data.

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## Annex A (normative)

### Codes — Message types

(see notes below and 4.2.2)

| <b>Numerical code</b> | <b>Name</b>            | <b>Description</b>  | <b>EDIFACT code<sup>1)2)</sup></b> |
|-----------------------|------------------------|---|------------------------------------|
| 01050                 | Damage/repair estimate | Description of damages and repair methods; authorization for repair work to proceed | DESTIM                             |

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#### NOTES:

1. To be used for electronic data interchange transmissions. See appropriate message descriptions published by UN/EDIFACT to determine messages to which the codes in this standard may apply. Further message types and equivalent EDIFACT codes will be added as released by EDIFACT.
2. EDIFACT codes, message standards (including the relevant message type codes) are controlled by UN/EDIFACT (Electronic Data Interchange for Administration, Commerce, and Transport), a subsidiary organization to UN/ECE/WP.4. ISO has assented to this arrangement via a memorandum of understanding between ISO and UN/ECE.

## Annex B (normative)

### Codes — Structural condition, repair condition, outside coating, inside coating; full/empty indicator

(see 4.1 and 4.2)

| Numerical code   | Name      | Description  | CEDEX code |
|--|-----------|--|------------|
| <b>B.1 Structural condition, repair condition, outside coating, inside coating</b> |           |  |            |
| 01110  | Bad       | Inferior quality or state of structural parts, workmanship, surface treatment, etc.              | B          |
| 01120  | Poor      | Poor quality or state of structural parts, workmanship, surface treatment, etc.                  | P          |
| 01130  | Medium    | Average or acceptable quality or state of structural parts, workmanship, surface treatment, etc. | M          |
| 01140  | Good      | Good quality or state of structural parts, workmanship, surface treatment, etc.                  | G          |
| 01150  | Excellent | Excellent quality or state of structural parts, workmanship, surface treatment, etc.             | X          |
| <b>B.2 Full/empty indicator</b>  |           |  |            |
| 01160  | Empty     | Empty condition of equipment   | E          |
| 01170  | Full      | Loaded condition of equipment  | F          |

## Annex C (normative)

### Codes — Damage location

(see 4.1 and 4.2)

#### C.1 Location coding convention

The location coding convention consists of three parts:

- a) For dry cargo, open top, thermal, tanks, and other container types:
  - A 1200 mm x 1200 mm (4 ft x 4 ft) numerical square system is used to identify damage to any face of a 20 ft or 40 ft container.
  - A 600 mm x 600 mm (2 ft x 2 ft) numerical square system is used to identify damage to any face of a 10 ft container.
  - A 900 mm x 900 mm (3 ft x 3 ft) numerical square system is used to identify damage to any face of a 30 ft container.
- b) For container ancillary equipment, which are an integral part of the container, such as reefer machinery, tank specific components, diesel generator set:
  - The location field is used to indicate the functional group to which a component belongs.
- c) For chassis:
  - As indicated in C.1.3.

#### C.2 All container bodies, refrigeration units, and generator sets (except chassis)

The container location coding convention locates damages within an area as large as a complete face of the container or as small as a nominal 1200 mm x 1200 mm (4 ft x 4 ft) square, or even less for the main components located on its edges (rails, corner posts).

The location code shall consist of four characters depending upon the area to be described. It identifies the smallest area containing the entire vertical and horizontal length of the damage.

##### C.2.1 First character

The first character shall be selected to identify the appropriate face of the container (if applied to a rectilinear closed container) or to the type of unit (if applied to a generator set, refrigeration unit, or tank container). For examples of use of codes for units other than closed containers or platforms, see C.1.2.

|                         |   |
|-------------------------|---|
| bottom (floor)          | B |
| chassis                 | C |
| door end (rear)         | D |
| container exterior      | E |
| front end               | F |
| generator set           | G |
| container interior      | I |
| left side               | L |
| refrigeration unit      | M |
| right side              | R |
| tank container          | A |
| top/roof                | T |
| understructure          | U |
| unspecified component   | N |
| whole container or unit | X |

### C.2.2 Second character

It shall be selected to identify the appropriate part of the container face where the damage is contained, when applied to a closed container. The vertical faces of the container are divided into top and bottom halves and upper and lower main components. The horizontal faces of the container (roof or top and floor or bottom and understructure) are divided into right and left halves when viewed from the door end.

The relevant codes for CLOSED CONTAINERS are:

|  |   |
|--|---|
| both halves (i.e. top and bottom, or left and right or centre) | X |
| bottom half  | B |
| higher portion (upper)   | H |
| left half  | L |
| lower portion (ground)   | G |
| right half   | R |
| top half   | T |

For other types of units, such as refrigeration units and generator sets, the second character designates the major assembly of the unit in which the damage is found. See C.1.2 for examples of how these codes are used. (Codes for chassis are shown in C.1.3.)

The relevant codes for REFRIGERATION UNITS are:

|                      |   |
|----------------------|---|
| compressor           | Q |
| condenser            | K |
| electrical           | E |
| evaporator           | V |
| frame                | F |
| miscellaneous        | Z |
| pipng                | P |
| regulation/control   | C |
| unspecified assembly | N |
| whole unit           | X |

The relevant codes for GENERATOR SETS are:

|                      |   |
|----------------------|---|
| alternator           | L |
| electrical           | E |
| engine (diesel)      | D |
| frame                | F |
| fuel system          | U |
| miscellaneous        | Z |
| oil system           | O |
| unspecified assembly | N |
| water system         | W |
| whole unit           | X |

The relevant codes for TANK CONTAINERS are:

|                      |   |
|----------------------|---|
| access               | A |
| frame                | F |
| heating              | H |
| insulation           | I |
| loading/unloading    | L |
| manhole              | M |
| marking              | D |
| miscellaneous        | Z |
| pressure vessel      | P |
| safety components    | S |
| spill box            | B |
| unspecified assembly | N |
| whole unit           | X |

### C.2.3 Third and fourth characters

They shall be selected to identify the section of the container part in which the damage is contained.

On all containers the front and door ends are divided into vertical sections numbered as follows when viewed from the door end from left to right:

- 1 for the left-hand side corner post
- 2 for the left half
- 3 for the right half
- 4 for the right-hand side corner post.

On all containers the right and left sides, the roof, the floor and the understructure, are divided into equal sections:

- for 10 ft and 20 ft containers, five sections numbered 1 to 5
- for 30 ft and 40 ft containers, ten sections numbered 1 to 0 ( 1, 2, 3, ..., 9, 0).

When the damage covers one section only, the third character indicates the appropriate section number and the fourth character shall be N [see figure C.1a)].

When the damage covers several adjacent sections the first and last section numbers are used [see figure C.1b)].

When the damage covers several non-adjacent sections or if damage repair details are not the same, then separate line items shall be used [see figure C.1c)].

When the damage covers the entire length of the container face, the third and fourth characters shall each be X [see figure C.1d)].

The third and fourth characters of units other than closed containers, chassis and platforms, such as refrigeration units, generator sets, and tank containers, shall be "NN". No further identification of the location of components on these units is required.

### C.2.4 General location coding

When the damage/action covers *several faces of the inside* of the container such as steam cleaning, inside refurbishment, refixing or sealing of panels, then the code IXXX shall be used.

When the damage/action covers *several faces of the outside* of the container such as outside refurbishment, refixing or sealing of panels, removing of cargo stickers, then the code EXXX shall be used.

When the damage/action covers *several inside and outside faces* of the container such as examinations, handling/transport, complete refurbishing, then the code XXXX shall be used.

### C.2.5 Examples of location coding for containers

Examples of location coding of components of typical containers are shown below. A diagram showing the components is shown in Figure C.1.

NOTE - LHS = left-hand side;

RHS = right-hand side;

\* = specific sequential number of component will be defined in separate free-text field.

| Reference in Figure C.1 | Location code | Component code | Description   |
|-------------------------|---------------|----------------|---|
| a                       | LT5N          | PAA            | Side panel, LHS, upper half, within the 5th 1200 mm (4 ft) section from rear  |
| b                       | RT24          | PAA            | Side panel, RHS, upper half, extending through 2 <sup>nd</sup> to 4 <sup>th</sup> sections from rear                                  |
| c                       | RB2N          | PAA            | Side panel, RHS, lower half, within the second section from the door  |
| c                       | RB4N          | PAA            | Side panel, RHS, lower half, within the fourth section from rear  |
| d                       | TXXX          | PAA            | Roof panel, both sides, extending through all sections  |
| e                       | UX1N          | CMA            | Cross-member, both sides, within first section from door  |
| f                       | UR12          | CMA            | Several cross-members, RHS, extending through first two sections*   |
| g                       | TX12          | RBO            | Roof bows, both sides, extending through first two sections*  |
| h                       | TR1N          | RBH            | Roof bow holder, RHS, within first section (bow holder number will be defined in separate free-text field)                            |
| i                       | UL8N          | CMA            | Outrigger, LHS, within the eighth section from door (40 ft) (outrigger number will be defined in separate free-text field)            |
| j                       | UX3N          | FLW            | Web (side) of forklift pocket, both sides, within third section from door (pocket number will be defined in separate free-text field) |
| k                       | UR4N          | FLS            | Forklift pocket strap, RHS, within fourth section from door (pocket number will be defined in separate free-text field)               |
| l                       | RX1N          | SBO            | Side post, RHS, both halves, within the first section from door (post number will be defined in separate free-text field)             |
| m                       | UX15          | RLA            | Centre spacer rail, extending through sections 1-5 from door  |
| n                       | UR80          | RLA            | Tunnel rail, extending through sections 8-10 from door  |
| o                       | DX2N          | LBA            | Locking bar, LH door, both halves (locking bar number will be defined in separate free-text field)                                    |

NOTE- Specific sequential number of component will be defined in separate free-text field as follows:

- Roof bows, cross-members, outriggers and forklift pocket sides are to be numbered from rear (door) end to front
- Locking bars are to be numbered from left to right.

### C.3 Ancillary equipment

The specific components of ancillary equipment which are an integral part of a container such as refrigeration machinery, diesel generator, tank fittings are identified

- firstly, by the two alpha characters selected to identify the major functional group to which the component belongs: they are the first and second characters of the location code;
- secondly, by the code NN: it forms the third and fourth characters of the location code.

#### EXAMPLES

|      |                                  |
|------|----------------------------------|
| MQNN | Reefer machinery (compressor)    |
| APNN | Tank container (pressure vessel) |
| GDNN | Generator set (engine).          |

Components that occur more than once in an ancillary equipment or which are common or similar to other components are given the same component code but are differentiated by functional group code.

EXAMPLES

| Location field | Component field | Description                                      |
|----------------|-----------------|--|
| MKNN           | MAS             | Refrigeration machinery - Condenser fan motor    |
| MVNN           | MAS             | Refrigeration machinery - Evaporator fan motor   |
| MPNN           | VSA             | Refrigeration machinery - Suction solenoid valve |
| ASNN           | YTR             | Tank - Safety relief valve                       |

**C.3.1 Chassis**

**C.3.2 First character**

The first character of the location code for all chassis is always C.

**C.3.3 Second character**

The second character defines the major assembly of the chassis. The relevant codes are:

|                            |   |
|----------------------------|---|
| axle (full width)          | A |
| bumper (rear end) area     | B |
| frame (main)               | F |
| frame (extension)          | Y |
| kingpin/grid/upper coupler | K |
| landing gear               | G |
| left wheel(s)              | L |
| miscellaneous              | Z |
| right wheel(s)             | R |
| subframe/suspension        | U |
| unspecified assembly       | N |
| whole unit                 | X |

**C.3.4 Third and fourth characters**

On all chassis, the third and fourth characters indicate the section of the relevant assembly (defined by the second location code character) affected. Acceptable characters are shown in table C.1 below:

Table C.1

| Second character:<br>Assembly (code) | Third character  | Fourth character  |
|--------------------------------------|--|---|
| Axle-full width (A)                  | N: Not applicable<br>X: All wheels on axle   | C: Centre axle (triale unit)<br>F: Front axle<br>N: Not specified<br>R: Rear axle<br>X: All axles                                       |
| Bumper-rear end (B)                  | L: Left half<br>N: Not specified<br>R: Right half<br>X: Both halves  | N: Not applicable   |
| Frame (main) (F)                     | Rearmost damaged section (identify left half, right half or both halves as applicable):<br>1: Aft section, left half (aft or forwardmost point on running gear or slider range if applicable)<br>2: Central section, left half (between landing gear and aft section)<br>3: Forward section, left half (forward of landing gear)<br>4: Aft section, right half<br>5: Central section, right half<br>6: Forward section, right half<br>7: Aft section, both halves<br>8: Central section, both halves<br>9: Forward section, both halves<br>N: Not specified<br>X: Entire frame | Forwardmost damaged section:<br><br>Same codes as third character, except <b>N</b> also used when damage is limited to a single section |
| Frame extension (Y)                  | L: Left half<br>N: Not specified<br>R: Right half<br>X: Both halves  | F: Front half<br>N: Not specified<br>R: Rear half<br>X: Both halves   |
| Kingpin/grid/upper coupler (K)       | L: Left half<br>N: Not specified<br>R: Right half<br>X: Both halves  | F: Front half<br>N: Not specified<br>R: Rear half<br>X: Both halves   |
| Landing gear (G)                     | L: Left half<br>N: Not specified<br>R: Right half<br>X: Both halves  | N: Not applicable   |
| Left wheel(s) (L)                    | I: Inside wheel<br>N: Not applicable<br>O: Outside wheel<br>X: Both inside and outside wheels  | C: Centre axle (triale unit)<br>F: Front axle<br>N: Not specified<br>R: Rear axle<br>X: All axles                                       |
| Miscellaneous (Z)                    | N: Not applicable  | N: Not applicable   |
| Right wheel(s) (R)                   | I: Inside wheel<br>N: Not applicable<br>O: Outside wheel<br>X: Both inside and outside wheels  | C: Centre axle (triale unit)<br>F: Front axle<br>N: Not specified<br>R: Rear axle<br>X: All axles                                       |
| Subframe/suspension (U)              | L: Left half<br>N: Not specified<br>R: Right half<br>X: Both halves  | F: Front half<br>N: Not specified<br>R: Rear half<br>X: Both halves   |
| Unspecified assembly (N)             | N: Not applicable<br>X: Entire assembly  | N: Not applicable<br>X: Entire assembly   |
| Whole unit (X)                       | X: Entire assembly   | X: Entire assembly  |

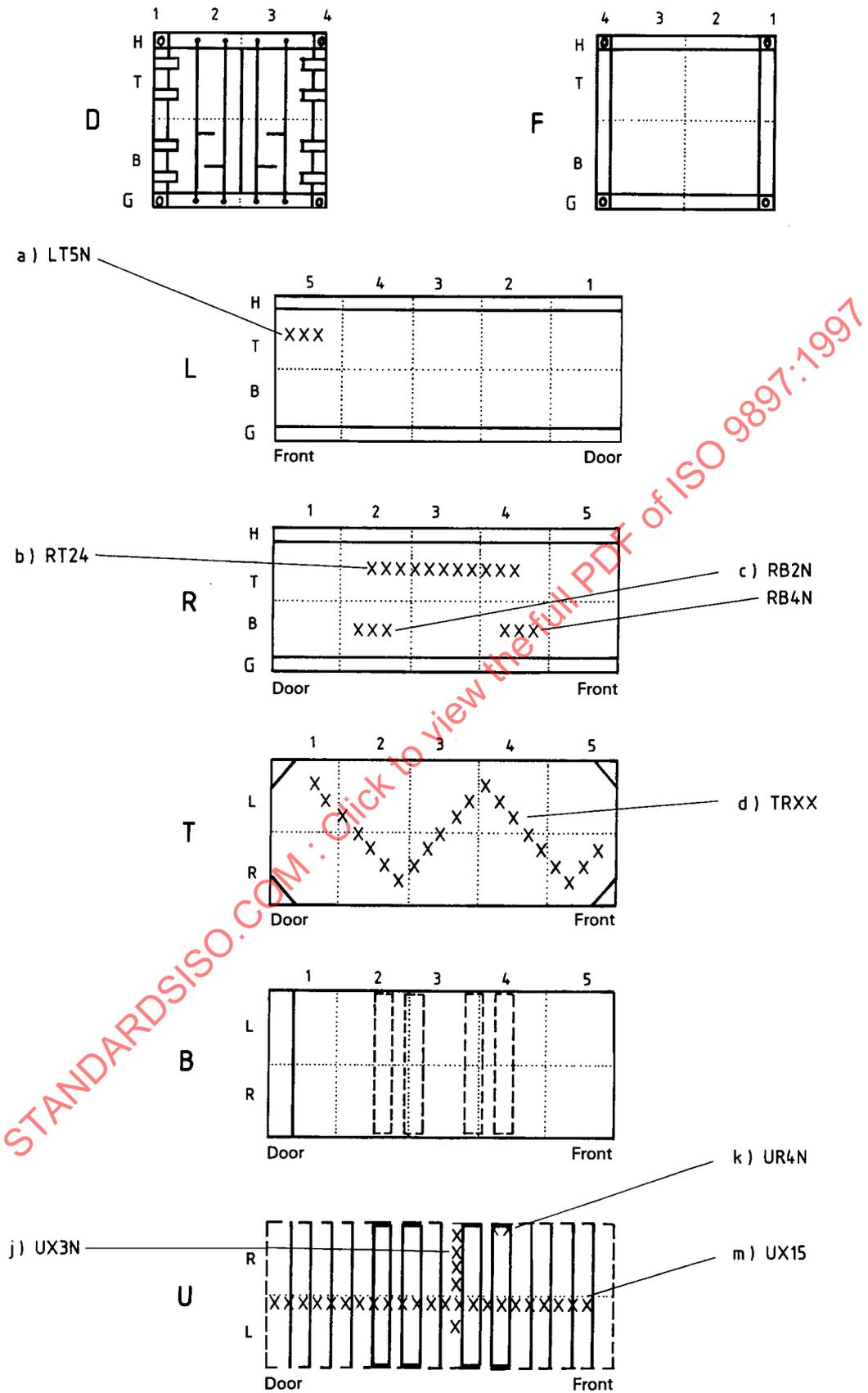


Figure C.1 — Examples of location coding for containers

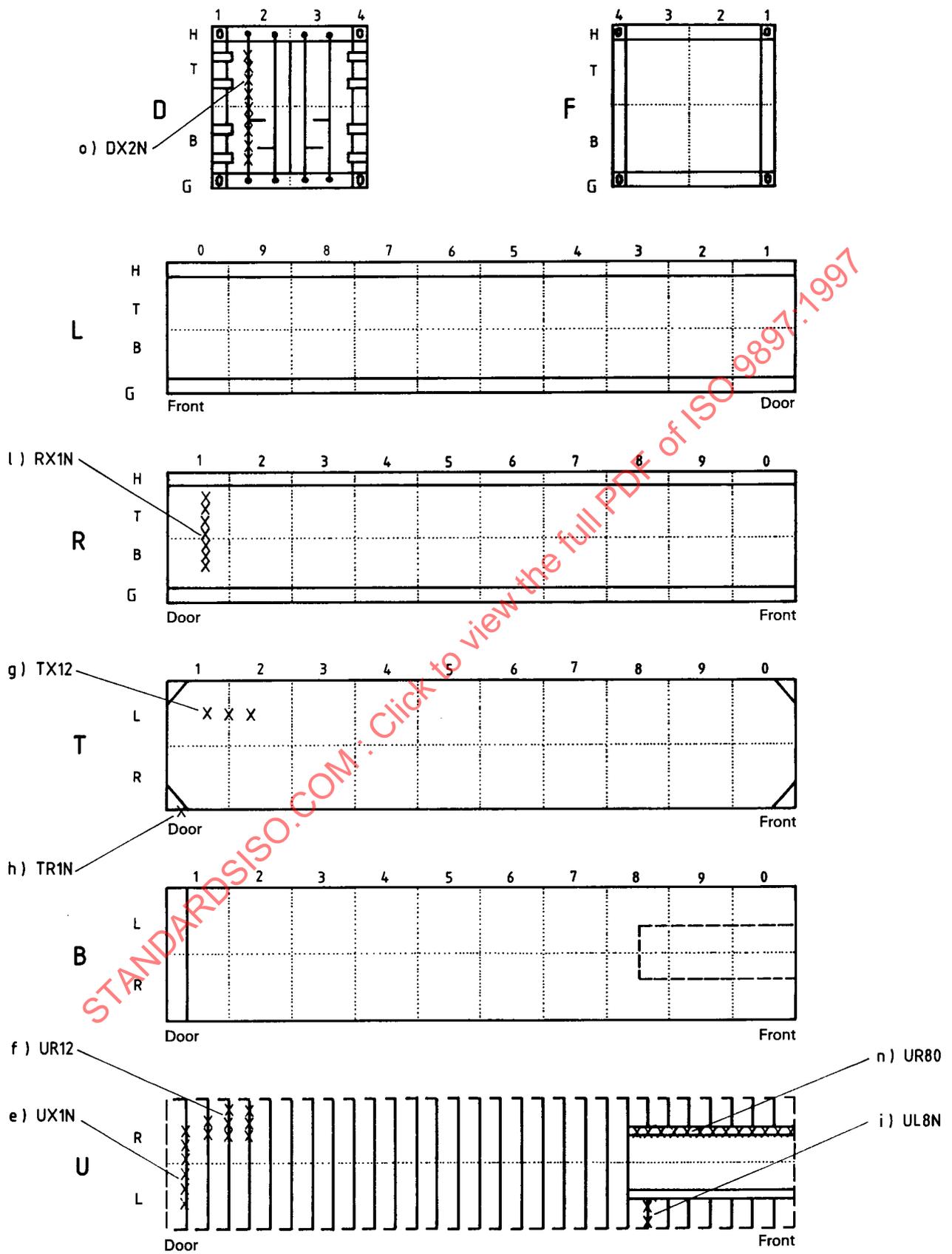


Figure C.1 (concluded)

## Annex D (normative)

### Codes — Damage types

(see 4.1 and 4.2)

| Numerical code | Name                    | Description   | CEDEX code |
|----------------|-------------------------|---|------------|
| 04010          | Bald                    | Tyre is bald or worn to less than legal tread depth remaining   | WB         |
| 04020          | Bent                    | Component is damaged by being bent  | BT         |
| 04030          | Bowed                   | Component is damaged by being bowed. Usually damage is gradual over the length of the component                             | BW         |
| 04040          | Blocked                 | Drain, tube, outlet, etc. is blocked  | BK         |
| 04050          | Blowout                 | Tyre is unusable due to a blowout   | BL         |
| 04060          | Broken/split            | Component is damaged by being broken or split   | BR         |
| 04065          | Bulged                  | Weakened wall permitting formation of a bulge due to internal pressure  | BU         |
| 04069          | Burned                  | Component whose surface is damaged by burns   | BN         |
| 04070          | Burned out              | Electrical component is burned out  | BO         |
| 04080          | Casing/tread separation | Casing or tread has separated from the carcass of the tyre  | TS         |
| 04090          | Compression line        | Series of dents in a straight line that decreases the strength of a component when it is placed in compression              | CL         |
| 04100          | Contaminated            | Equipment is rendered unsuitable for cargo because of contamination by chemicals or other cargo products, or by infestation | CT         |
| 04110          | Corroded/rusty          | Component is corroded or rusty  | CO         |
| 04115          | Cracked                 | Crack apparent either in surface or through part or all of component profile  | CK         |
| 04117          | Cracked weld            | Welding seam is damaged by being cracked  | CW         |
| 04120          | Cut                     | Component is damaged by being cut   | CU         |
| 04130          | Curbing                 | Tyre is rendered unusable by being damaged in the shoulder area by running up on the curb                                   | CB         |
| 04140          | Debris/dunnage          | Equipment is unusable due to cargo residue or dunnage left inside   | DB         |
| 04150          | Delaminated             | Component, usually of wood, is damaged due to separation of laminations   | DL         |
| 04160          | Dent                    | Component is damaged by being dented  | DT         |
| 04165          | Dirty                   | Unclean condition that may affect utility of container  | DY         |
| 04170          | Flat/puncture           | Tyre is deflated due to being punctured   | FP         |
| 04180          | Flat spots              | Tyre has spots or areas where tread is worn below legal limits for tread depth remaining                                    | FS         |

| Numerical code | Name                          | Description  | CEDEX code |
|----------------|-------------------------------|--|------------|
| 04190          | Frozen                        | Component is inoperable by being frozen or corroded  | FZ         |
| 04200          | Gouged                        | Component is damaged by being gouged   | GD         |
| 04210          | GRP surface crack             | GRP panel is cracked through the glass and gelcoat only  | GO         |
| 04220          | GRP surface and plywood crack | GRP panel is cracked through the glass, gelcoat and plywood                                    | GP         |
| 04230          | Holed                         | Component is damaged by being holed  | HO         |
| 04240          | Improper repair               | A repair that does not conform to owner's requirements or industry standards                   | IR         |
| 04250          | Leak                          | Equipment or component leaks   | LK         |
| 04260          | Loose                         | Component is loose   | LO         |
| 04270          | Low fluid level               | Component or system has less than required amount of fluid                                     | LF         |
| 04280          | Markings/labels               | Labels, marks, logos, and graffiti, etc., not required by owner                                | ML         |
| 04290          | Motor failure                 | Motor will not function  | MF         |
| 04300          | Misaligned                    | Component, usually chassis tandem, is misaligned   | MA         |
| 04310          | Mismatched                    | Two adjacent tyres have different diameters and are, therefore, not acceptable as matched pair | MM         |
| 04320          | Missing/lost                  | Component is missing or lost   | MS         |
| 04330          | Nails                         | Equipment is rendered unsuitable for cargo due to nails, usually in flooring                   | NL         |
| 04340          | Not within ISO dimensions     | Equipment is not usable because it is no longer within the ISO dimensional envelope            | NI         |
| 04350          | Not to TIR requirements       | Equipment or component no longer complies with TIR regulations                                 | NT         |
| 04355          | Not applicable                | A condition for which no specific damage type applies  | ZZ         |
| 04360          | Not as required by owner      | Equipment or component no longer complies with owner's requirements                            | NO         |
| 04365          | Not as required by user       | Equipment or component no longer complies with user's requirements                             | NV         |
| 04370          | Odour                         | Equipment is rendered unsuitable for cargo because of odour                                    | OR         |
| 04380          | Oil saturated                 | Component, usually flooring, is damaged by being heavily contaminated with oil                 | OL         |
| 04390          | Oil stains                    | Component, usually flooring, is damaged by being spotted with oil                              | OS         |
| 04400          | Other unacceptable repairs    | Any repair deemed unacceptable by the owner or for reasons not specifically covered            | OU         |
| 04410          | Out-of-date                   | Renewal of a periodic inspection, test or document is overdue                                  | OD         |

| Numerical code | Name                          | Description   | CEDEX code |
|----------------|-------------------------------|---|------------|
| 04420          | Over-inflated                 | Tyre is damaged by being run while over-inflated  | OI         |
| 04430          | Under-inflated                | Tyre is damaged by being run while under-inflated   | UI         |
| 04440          | Pin holes                     | Component is damaged with minute holes  | PH         |
| 04445          | Rotted                        | Component integrity compromised by rot  | RO         |
| 04450          | Run flat                      | Tyre is damaged by being run with very little or no inflation                                       | RF         |
| 04455          | Scratched/abraded moving part | Moving part (bearing, piston, etc.) scored, scratched, or abraded by friction                       | SA         |
| 04460          | Separated                     | Brake lining has separated from the brake shoe  | SP         |
| 04470          | Short/open circuit            | Electrical system is inoperable due to a short or open circuit                                      | SH         |
| 04480          | Shrunk                        | Component, usually tarpaulin, cover, tilt, or flooring is damaged by shrinkage                      | SR         |
| 04490          | Stretched                     | Component, usually tarpaulin, cover, or tilt is damaged by stretching                               | SD         |
| 04500          | Switched                      | Tyre is not original and is not comparable to the other tyres on the chassis                        | SW         |
| 04510          | Uneven tread                  | Adjacent tyres have different tread depth remaining   | TU         |
| 04520          | Paint failure                 | Component suffers from a breakdown of the paint system  | PF         |
| 04540          | Warped                        | Component is damaged by being warped  | WA         |
| 04550          | Weathered                     | Tyre is rendered unusable due to long exposure to weather   | WV         |
| 04560          | Wear and tear                 | The unavoidable deterioration of a component during usage under proper operating conditions         | WT         |
| 04570          | Worn                          | Component is rendered unusable by being worn. For a tyre, worn to below legal tread depth remaining | WN         |
| 04580          | Wrong material                | Previous repair or replacement was carried out using the wrong material                             | WM         |

## Annex E (normative)

### Codes — Material types

(see 4.1 and 4.2)

| Numerical code | Name                            | Description   | CEDEX code |
|----------------|---------------------------------|---|------------|
| 05000          | Material unspecified            | Material is not specified   | MU         |
| 05100          | Steel unspecified               | Material is steel of no specific type                                   | SU         |
| 05110          | Steel, carbon                   | Material is of carbon steel   | ST         |
| 05120          | Steel, corten                   | Material is of corten steel   | SK         |
| 05130          | Steel muffler                   | Material is muffler grade steel (semi-corrosion resistant)              | SM         |
| 05140          | Steel, stainless                | Material is stainless steel (corrosion resistant)                       | SS         |
| 05150          | Steel, galvanized               | Material is galvanized steel  | SG         |
| 05200          | Aluminium unspecified           | Material is aluminium of no specific type                               | AU         |
| 05210          | Aluminium pre-painted           | Material is of pre-painted aluminium                                    | AP         |
| 05300          | Wood                            | Material is of wood of no specific type                                 | WU         |
| 05310          | Wood, hard plank                | Material is of hardwood plank   | WH         |
| 05320          | Wood, soft plank                | Material is of softwood plank   | WS         |
| 05330          | Wood, laminated plank           | Material is vertically laminated plank of no specific wood type         | LU         |
| 05340          | Wood, hard laminated plank      | Material is vertically laminated hardwood plank                         | LH         |
| 05350          | Wood, soft laminated plank      | Material is vertically laminated softwood plank                         | LS         |
| 05360          | Plywood                         | Plywood, unspecified type   | PP         |
| 05370          | GRP plywood                     | Plastic coated, glass-fibre reinforced plywood                          | PG         |
| 05380          | Plymetal                        | Material is plywood, faced with metal of no specific type on both sides | PM         |
| 05400          | Plastics                        | Plastics, unspecified type  | PU         |
| 05410          | Plastics reinforced             | Plastics reinforced with fibres   | PE         |
| 05420          | Insulation material unspecified | Insulating material in slab   | IS         |

| <b>Numerical code</b> | <b>Name</b>                           | <b>Description</b>           | <b>CEDEX code</b> |
|-----------------------|---------------------------------------|------------------------------|-------------------|
| 05430                 | Insulation material<br><i>in situ</i> | Insulating material injected | II                |
| 05440                 | Rubber,<br>unspecified                | Rubber, unspecified type     | RU                |

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## Annex F (normative)

### Codes — Repair type

(see 4.1 and 4.2)

| Numerical code | Name                         | Description  | CEDEX code |
|----------------|------------------------------|--|------------|
| 06010          | Abrasive clean and paint     | Clean mechanically with abrasive grit or shot and paint  | AB         |
| 06020          | Adjust                       | Adjust a mechanical part or system (usually brakes) to improve performance   | AJ         |
| 06030          | Air                          | Inflate or deflate tyres to correct pressure   | AR         |
| 06040          | Air clean                    | Clean a component or equipment with high pressure air  | AC         |
| 06050          | Blank out                    | Remove a ventilator and "blank out" the panel behind   | BU         |
| 06060          | Brand                        | Apply a name/initial or other mark to tyres to denote ownership or other information   | BD         |
| 06070          | Chemical clean               | Clean a component with chemical wash   | CC         |
| 06075          | Deodorize                    | Neutralize odour in container  | DO         |
| 06080          | Drain                        | Drain the system   | DR         |
| 06090          | Drain and fill               | Drain the system and fill with appropriate fluid   | DF         |
| 06100          | Inspect and report           | Inspect equipment or component for proper function, damage or reason for non-operation, and re-estimate. An additional report will follow on completion  | IP         |
| 06110          | Free                         | Free a frozen, seized or stiff component by means of force, lubricants or heat   | FR         |
| 06115          | Handling                     | Equipment must be handled in order to make available, but without other repair action  | HN         |
| 06120          | Insert                       | Remove and replace part of the cross-sectional profile of a component over its entire length and/or width. The replacement portion is butt-welded to the original component  | IT         |
| 06125          | Install                      | Fit a component for the first time   | IN         |
| 06130          | Lubricate                    | Apply lubrication  | LC         |
| 06135          | Modifications, miscellaneous | Alter a component such that its specification is changed   | MD         |
| 06138          | Not applicable               | Condition for which no specific repair type applies  | ZZ         |
| 06140          | Overlapping partial section  | Remove and replace part of the cross-sectional profile of a component over its entire length and/or width. The replacement portion is overlapped with and fillet-welded to the original component. The exterior of the patch is continuously welded to the original component. The interior may be continuously or skip-welded with sealer applied to seams between skip welds | OP         |

| <b>Numerical code</b> | <b>Name</b>                    | <b>Description</b>  | <b>CEDEX code</b> |
|-----------------------|--------------------------------|---|-------------------|
| 06150                 | Paint                          | Apply paint   | PA                |
| 06155                 | Overlay                        | Cover a surface with a thin layer of the same or similar material   | OX                |
| 06160                 | Partial refurbishment          | Remove localized corrosion and repaint the surface of the equipment fully or partially  | PR                |
| 06170                 | Patch                          | Remove and replace a part of the cross-sectional profile of a component, over only part of the component's length and/or width. A patch is overlapped with and fillet-welded to the original component. The exterior of the patch is continuously welded to the original component. The interior may be continuously or skip-welded with sealer applied to the seams between skip welds | PT                |
| 06175                 | Patch and foam                 | Patch as indicated in 06170, and also remove and replace underlying insulating foam   | PX                |
| 06180                 | Preventive maintenance         | Maintenance carried out under the owner's instruction   | VM                |
| 06190                 | Re-align                       | a) Remove or unfasten a component, usually doors, and refit to bring into alignment<br>b) Move chassis tandem to bring into alignment   | RA                |
| 06200                 | Rebuild                        | Strip, clean, lubricate, and reassemble a mechanical component  | RB                |
| 06205                 | Re-bush                        | Remove and refit a bush(ing) into a component   | RU                |
| 06210                 | Recharge                       | Supply a full charge of fluid to system   | CH                |
| 06220                 | Recondition/refurbish          | Prepare surface of equipment and repaint in accordance with the owner's instructions  | RC                |
| 06230                 | Refit                          | Refit a removable component to its proper position  | FT                |
| 06240                 | Re-glass                       | Repair surface and veneer cracks or damage to GRP panels  | RG                |
| 06250                 | Re-mark                        | Replace markings  | MK                |
| 06260                 | Remove and dispose             | Remove and dispose of debris, dunnage, or packing material  | RD                |
| 06270                 | Repairs prior to refurbishment | Repairs ordered by owner prior to refurbishment   | PV                |
| 06280                 | Remove (without replacement)   | Remove and not replace a component  | RM                |
| 06290                 | Remove and refit               | Remove and refit after repair   | RR                |
| 06295                 | Remove glue and tape           | Clean surfaces of glue and tape, including their residues   | GT                |
| 06297                 | Remove markings                | Remove unwanted labels, marks, logos, and graffiti  | MV                |
| 06300                 | Replace                        | Remove and replace the complete cross sectional profile of a component over its entire length and width   | RP                |
| 06310                 | Re-rate                        | Modify data relating to maximum gross mass or tare on any data plate or weight marking  | RT                |

| <b>Numerical code</b> | <b>Name</b>                   | <b>Description</b>  | <b>CEDEX code</b> |
|-----------------------|-------------------------------|---|-------------------|
| 06315                 | Resecure                      | Reapply or tighten fasteners on loose components  | RE                |
| 06320                 | Rewire                        | Repair an electrical component or system by rewiring  | RW                |
| 06325                 | Sand                          | Smooth a surface by sanding   | SD                |
| 06330                 | Seal/reseal                   | a) Repair pin holes in a tarpaulin cover or tilt using sealant<br>b) Apply sealant to or around component         | SE                |
| 06340                 | Section                       | Remove and replace the complete cross-sectional profile of a component over part of its length and/or width       | SN                |
| 06345                 | Section and foam              | Section as indicated in 06340, and also remove and replace underlying insulating foam                             | SF                |
| 06350                 | Splice                        | Repair by section using rivets with, usually, a doubler piece or backing plate at the joint                       | SI                |
| 06360                 | Straighten                    | Repair by straightening   | GS                |
| 06370                 | Straighten and resecure       | Repair by straightening and resecuring the component when repaired  | RS                |
| 06380                 | Straighten and weld           | Repair by straightening a component and rewelding it into position  | GW                |
| 06390                 | Steam clean                   | Clean the component, usually the floor, using high pressure steam   | SC                |
| 06400                 | Surface preparation and paint | Clean and prepare the surface and apply paint   | PS                |
| 06410                 | Sweep                         | Clean the component, usually the floor, by sweeping   | WP                |
| 06420                 | Top up                        | Refill fluid to correct level   | TP                |
| 06430                 | Water wash                    | Clean the component, usually the floor, using water   | WW                |
| 06440                 | Weld                          | Repair by welding   | WD                |
| 06450                 | Grind and weld                | Repair by grinding and welding  | XW                |
| 06500                 | Temporary repair              | Repair for temporary securement of cargoworthiness until a permanent repair can be made at a suitable repair shop | TR                |

**Annex G**  
(normative)

**Codes — Measure unit specifier; repair size dimension and work scales**

(see 4.1 and 4.2)

| Numerical code                    | Name        | Description                   | CEDEX code |
|-----------------------------------|-------------|-------------------------------|------------|
| <b>G.1 Measure unit specifier</b> |             |                               |            |
| 07010                             | Inches      | Measurement is in inches      | INH        |
| 07020                             | Feet        | Measurement is in feet        | FOT        |
| 07030                             | Millimetres | Measurement is in millimetres | MMT        |
| 07040                             | Centimetres | Measurement is in centimetres | CMT        |
| 07050                             | Metres      | Measurement is in metres      | MTR        |

**G.2 Size of repair**

Size of repair, where required, is defined by dimensions of either length, length and height, or length and width.

EXAMPLE

|                   |            |
|-------------------|------------|
| Length only       | 6          |
| Length and height | 1500 x 100 |
| Length and width  | 2 x 1      |

**G.3 Work scale**

The work scale is a factor related to the standard time to reflect ease or difficulty of repair. The factor is a percentage shown as 2-numeric. In normal cases it may range from 05 (i.e. 50% easier work) to 10 (i.e. standard time) to 15 (i.e. 50% over the standard time needed).

## Annex H (normative)

### Codes — Responsibility

(see 4.1 and 4.2)

| Numerical code | Name          | Description   | CEDEX code |
|----------------|---------------|---|------------|
| 08010          | Manufacturer  | The repair is necessary to correct a manufacturer's defect outside the warranty or guarantee period     | H          |
| 08020          | Depot         | The repair is necessary to correct damage/negligence by depot and is for the account of the depot       | D          |
| 08030          | Terminal      | The repair is necessary to correct damage/negligence by terminal and is for the account of the terminal | S          |
| 08040          | User          | The repair is for the user's account  | U          |
| 08050          | Owner         | The repair is for the owner's account   | O          |
| 08060          | Third party   | The repair should be charged to the party responsible, usually not the owner or user                    | T          |
| 08070          | Warranty      | The repair is required under a manufacturer's warranty within the agreed period                         | W          |
| 08080          | DPP/insurance | The repair costs are covered by insurance or an insurance programme                                     | I          |

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## Annex J (informative)

### Codes — Party identification and location

(see 4.1 and 4.2)

As a complement to this part of ISO 9897, a directory of names and addresses of companies participating in standardized communication rules for commercial transaction related to containers will be developed.

The International Container Bureau has been nominated to act as the Registration Authority for the party identification and location codes:

Bureau International des Containers (BIC)  
167, rue de Courcelles  
F-75017 Paris  
France

Telephone: +33-1-47 66 03 90  
Telefax: +33-1-47 66 08 91

The code of business names and addresses will consist of a

- 5-alpha code which is the LOCODE for the location nearest the business address, plus a
- 4-alpha code for the identification of the individual company.

The International Container Bureau will publish an updated directory of business names and addresses and codes at least once a year.

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## Annex K (normative)

### Codes — Components of Container

(see 4.1 and 4.2)

#### NOTES

- 1: Material is assumed to be of normal type for the design and type of container unless specified otherwise in the material code.
- 2: The number in brackets under the CEDEX code is the number of the figure in which the component is illustrated (see figures K.1 to K.7).

| Numerical code  | Name                           | Description  | CEDEX code        |
|---|--------------------------------|--|-------------------|
| <b>K.1 Components of general purpose, open top, and platform containers</b> |                                |  |                   |
| <b>K.1.1 Bow (roof)</b>   |                                |  |                   |
| 10200   | Roof bow                       | Members mounted transversely across the top of a container and either forming part of a rigid roof structure or supporting flexible, removable covers, in which case the members are commonly removable, or so designed as to slide to facilitate the loading of cargo through the top of the container [from ISO 830] | RBO<br>(K.2)      |
| 10210   | Roof bow securement device     | Device at the top rail to support the ends of the roof bow   | RBS<br>(K.2)      |
| 10220   | Roof bow holder                | Device at the top rail to support the ends of a detachable roof bow  | RBH<br>(K.2)      |
| 10225   | Roof bow pin                   | Pin on top rails used to secure removable roof bow   | RBP               |
| <b>K.1.2 Cargo securing device</b>  |                                |  |                   |
| 10230   | Cargo securing device assembly | Cargo tie-down fittings fixed to any part of the container for the attachment of straps or other devices to restrain movement of cargo   | LSA<br>(K.1)      |
| 10240   | Lashing bar                    | Bar for the attachment of straps or other devices to restrain movement of cargo  | LSB<br>(K.1, K.2) |
| 10250   | Lashing ring                   | Part of the securing device assembly to which straps or other lashings are secured to restrain cargo movement  | LSR<br>(K.1)      |
| <b>K.1.3 Corner posts</b>   |                                |  |                   |
| 10260   | Corner post assembly           | Vertical structural member at either side of an "end frame" of a container joining a top and a bottom corner fitting (and thereby forming a "corner structure") [from ISO 830]   | CPA<br>(K.2, K.3) |
| 10270   | Clip on gen set clamp socket   | Fitting in the corner post into which the lower part of a clip on a generator set is secured   | COS (K.2)         |

| Numerical code                                    | Name                       | Description  | CEDEX code     |
|---|----------------------------|--|----------------|
| 10280   | Corner fitting             | Fittings located at the corners of containers providing means of supporting, stacking, handling, and securing the container [from ISO 830] | CFG (K.2, K.3) |
| 10290   | Corner post gusset         | Reinforcement between the corner fitting and the corner post, particularly in a platform-based container                                   | CPG (K.1)      |
| 10300   | Corner post inner piece    | Inner part of a two- or multi-component corner post  | CPI (K.3)      |
| 10310   | Corner post J-bar          | Portion of the exterior part of the rear corner post that encircles the door hinges  | CPJ (K.3)      |
| 10320   | Corner post hinge lug      | Hinge component permanently attached by welding to the rear corner post  | CPL (K.3)      |
| 10330   | Corner post outer piece    | Outer part of a two- or multi-part corner post   | CPO (K.3)      |
| 10340   | Corner post reinforcement  | Vertical reinforcement of a corner post, normally welded to the corner post outer part   | CPR (K.3)      |
| 10350   | Corner post single piece   | Single component of a one-piece corner post  | CPS (K.2)      |
| 10360   | Corner post whole section  | Complete transverse section of a corner post   | CPT (K.3)      |
| <b>K.1.4 Cross-members</b> (including outriggers) |                            |  |                |
| 10370   | Cross-member assembly      | Components in the base structure of a container supporting the floor   | CMA (K.1)      |
| 10380   | Cross-member fixing plate  | Components welded to the cross-member ends for their securing to the bottom side rails by rivets or special bolts                          | CMF (K.1)      |
| 10390   | Cross-member lower flange  | Lower flange of a cross-member   | CML (K.1)      |
| 10400   | Cross-member upper flange  | Upper flange of a cross-member   | CMU (K.1)      |
| 10410   | Cross-member web           | Web of a cross-member  | CMW (K.1)      |
| 10420   | Cross-member whole section | Complete transverse section of a cross-member  | CMS (K.1)      |
| 10425   | Outrigger                  | Short cross-member extending between bottom side rail and gooseneck tunnel rail  | CMO            |
| <b>K.1.5 Door gaskets</b>                         |                            |  |                |
| 10430   | Gasket assembly            | Seal running round the edge of a door and other fittings needed to ensure its proper fixing  | GTA            |
| 10440   | Gasket retainer strip      | Strip running inside a gasket around a door through which fasteners are passed to secure the gasket to the door edge                       | GRS (K.3)      |
| 10450   | Inner gasket               | Inner gasket of a multi-gasket system, usually on thermal containers   | GIN (K.3)      |

| Numerical code           | Name                                  | Description   | CEDEX code |
|--------------------------|---------------------------------------|---|------------|
| 10460                    | Inner/outer gasket                    | Whole part of a multi-leaf gasket, combining the effects of both the inner and outer gaskets, usually found on thermal containers | GIO (K.3)  |
| 10470                    | Outer gasket                          | Outer part of the multi-leaf gasket, usually on thermal containers  | GTO (K.3)  |
| <b>K.1.6 Door hinges</b> |                                       |   |            |
| 10480                    | Hinge assembly                        | Fitting on which the door rotates   | HGA (K.3)  |
| 10485                    | End frame hinge assembly              | Rotating assembly supporting collapsible end frame of platform-based container  | EFH        |
| 10490                    | Hinge blade                           | Hinge component that is secured to the door and holds the pin   | HGB (K.3)  |
| 10500                    | Hinge pin                             | Hinge component attaching the blade to the lug  | HGP (K.3)  |
| 10505                    | Door hinge bush(ing)                  | Bush(ing) inserted into door hinge for smooth operation   | DHB        |
| <b>K.1.7 Door gear</b>   |                                       |   |            |
| 10509                    | Door gear, complete                   | Set of door-locking rods, cams and cam retainers (keepers), including mounting hardware, for a single door                        | DGR        |
| 10510                    | Locking-bar assembly                  | Complete mechanism that keeps the door secured closed   | LBA (K.3)  |
| 10520                    | Locking-bar bracket                   | Device attaching the locking bar to the top and bottom of a door, usually containing a bush(ing)                                  | LBB (K.3)  |
| 10530                    | Locking-bar cam                       | Part of the door securing device that engages the retainer which, by a lever action, forms the cam lock                           | LBC (K.3)  |
| 10540                    | Locking-bar guide                     | Component, intermediate to the locking-bar brackets, which holds the locking bar to the door in proper alignment                  | LBG (K.3)  |
| 10550                    | Locking-bar handle                    | Component attached to the locking bar rod by mean of the lug which, by turning, operates the assembly                             | LBH (K.3)  |
| 10560                    | Locking-bar lug                       | Component, part of the locking bar rod to which the locking bar handle is secured   | LBL (K.3)  |
| 10570                    | Locking-bar rod (tube)                | Vertical shaft or rod to which the cam locks are fitted   | LBR (K.3)  |
| 10575                    | Locking-bar nut                       | Nut used to secure locking-bar hardware   | LBN        |
| 10576                    | Locking pin - Sill to corner fitting  | Pin securing sill to corner fitting for collapsible end frame of platform-based container   | LPS        |
| 10577                    | Locking mechanism - Sill to end frame | Hardware used to secure sill to end frame for collapsible end frame of platform-based container                                   | LMS        |
| 10578                    | Locking pin - End frame to side rail  | Pin securing end frame to side rail for collapsible end frame of platform-based container   | LPP        |

| Numerical code | Name                               | Description  | CEDEX code     |
|----------------|------------------------------------|--|----------------|
| 10580          | Door customs flap                  | A protective cover over the customs seal   | LBF (K.3)      |
| 10585          | Door with hardware - flat          | Entire door that is fitted with flat panels, including stiffeners, hardware (except hinges) and gaskets  | DFA            |
| 10586          | Door with hardware - corrugated    | Entire door that is fitted with corrugated panels, including stiffeners, hardware (except hinges) and gaskets  | DCA            |
| 10587          | Door retainer lug                  | Mounting bracket, attached to door panel, that holds the door retainer   | DRL            |
| 10588          | Door security plug, left hand door | NOTE - Preliminary assignment; to be defined in a future edition   | DSO            |
| 10590          | Door handle lock assembly          | Device which can be sealed for compliance with the CCC and which locks the door in the closed position   | DHL (K.3)      |
| 10600          | Door handle catch                  | Component of the door handle lock assembly, 10590, fixed to the door and which the door handle is engaged when the doors are closed  | DHC (K.3)      |
| 10610          | Door handle retainer               | Component of the door handle lock assembly, 10590, which rotates and holds the door handle in the closed position, and through which the seal is secured                           | DHR (K.3)      |
| 10620          | Door customs seal point            | Holes in the door handle catch and door handle retainer through which the customs seal is secured  | DCS (K.3)      |
| 10630          | Door retainer                      | Device which retains the door in the open position   | DRT (K.2, K.3) |
| 10635          | Door stop/slam (security) plate    | Door edge plate preventing opening the left-hand door unless the right hand door is open   | DPL            |
| 10636          | Door plate rivets                  | Rivets used to attach door plate   | DPR            |
| 10640          | Anti-rack device                   | Device which reinforces the securement of the locking bar assembly and limits the racking of the door frame  | ARD (K.3)      |
| 10650          | Anti-rack omega                    | Anti-rack device in the form of an omega reinforcement running vertically, up the edge of the back door, which is connected to the horizontal members of the door frame by spigots | ARO (K.3)      |
| 10660          | Anti-rack plate                    | Anti-rack device, consisting of a plate at the top and bottom of the right-hand door which is connected to the left-hand door and door frame by spigots                            | ARP (K.3)      |
| 10670          | Anti-rack spigot                   | Device in the transverse members of a door frame, and the left-hand door in the plate system, over which the anti-rack device fits   | ARS (K.3)      |
| 10675          | Flat rack spring                   | NOTE - Preliminary assignment; to be defined in a future edition   | FRS            |

**Doors/Panels** See K.1.11, Panels  
**End transverse members** See K.1.13, Rails

#### K.1.8 Floor (wooden)

|       |                     |                       |           |
|-------|---------------------|-----------------------|-----------|
| 10680 | Wood floor assembly | Complete wooden floor | FWA (K.1) |
|-------|---------------------|-----------------------|-----------|

| Numerical code | Name                             | Description  | CEDEX code |
|----------------|----------------------------------|--|------------|
| 10690          | Plain plank                      | Flooring of wood plank   | FPB (K.1)  |
| 10700          | Hat section                      | Hat or omega steel section running longitudinally, sometimes used with either plywood or plank floorings | FHS (K.1)  |
| 10710          | Laminated plank                  | Flooring of (vertically) laminated plank   | FLB (K.1)  |
| 10720          | Plywood panel                    | Flooring of plywood  | FPP (K.1)  |
| 10730          | Threshold plate                  | Steel plate secured inside doorway to protect flooring against cargo handling equipment                  | FTP (K.1)  |
| 10740          | Combination steel and wood floor | NOTE - Preliminary assignment; to be defined in a future edition   | FWS        |

**Floor panel (insulated)** See clause K.5, Components of thermal containers

#### K.1.9 Forklift pockets

|       |  |   |           |
|-------|--|---|-----------|
| 10850 | Forklift pocket assembly                 | Reinforced pockets running transversally across the base of a container, piercing the bottom side rails at prescribed positions to permit the entry of the tines of forklift devices for lifting and carrying the container | FLA (K.1) |
| 10860 | Forklift pocket lower flange             | Flange formed at the bottom edge of the forklift pocket   | FLL (K.1) |
| 10870 | Forklift pocket strap                    | Plate welded to the bottom of each forklift pocket entrance   | FLS (K.1) |
| 10880 | Forklift pocket top plate                | Plated welded to the top of the forklift pocket   | FLP (K.1) |
| 10890 | Forklift pocket upper flange             | Flange formed at the top edge of the forklift pocket  | FLU (K.1) |
| 10900 | Forklift pocket web                      | Web or side of the forklift pocket  | FLW (K.1) |
| 10910 | Forklift pocket whole transverse section | Complete transverse section of a forklift pocket  | FLT (K.1) |

#### K.1.10 Hatches

|       |                          |   |                |
|-------|--------------------------|---|----------------|
| 10930 | Discharge hatch assembly | Hatch, when opened, which is used to discharge bulk cargo | HAD (K.3)      |
| 10940 | Loading hatch assembly   | Hatch, when opened, through which bulk cargo is loaded    | HAL (K.2)      |
| 10950 | Hatch cover              | Cover that closes off a hatch                             | HCV (K.2, K.3) |
| 10960 | Hatch gasket             | Gasket that seals the hatch cover                         | HGT (K.3)      |

| Numerical code | Name                    | Description   | CEDEX code     |
|----------------|-------------------------|---|----------------|
| 10970          | Hatch discharge sleeve  | Sleeve fitted to the discharge hatch for discharge  | HDS (K.3)      |
| 10980          | Hatch handle catch      | Component of the hatch handle locking assembly, fixed to the hatch cover, through which the customs seal is secured | HHC (K.2, K.3) |
| 10990          | Hatch hinge             | Fitting on which the hatch cover rotates  | HHG (K.2, K.3) |
| 11000          | Hatch handle retainer   | Device which retains the hatch-locking handle in the closed position, and through which the customs seal is secured | HHR (K.3)      |
| 11010          | Hatch customs point     | Holes in the hatch handle catch and hatch handle retainer through which the customs seal is secured                 | HCP (K.2, K.3) |
| 11020          | Hatch-locking bar       | Bar which holds the hatch cover closed  | HLB (K.2)      |
| 11030          | Hatch-locking handle    | Handle which operates the hatch-locking bar   | HLH (K.2, K.3) |
| 11040          | Hatch-locking mechanism | Device that keeps the hatch cover secured closed  | HLM (K.2, K.3) |

#### K.1.11 Panels

|       |                           |   |           |
|-------|---------------------------|---|-----------|
| 11200 | Panel assembly            | Complete panel (of all types)   | PAA (K.2) |
| 11210 | Panel - behind hinge      | Section of the door panel behind the hinge  | PBH (K.3) |
| 11240 | Panel - fixing strip      | Metal strip securing the edge of the plywood lining to the frame of a container   | PFX (K.3) |
| 11320 | Panel - plywood lining    | Plywood panel that lines the inside of dry cargo and other types of containers    | PPW (K.2) |
| 11330 | Panel - plymetal          | Panel, usually a door panel, made of plywood faced on both sides with metal sheet | PPM (K.3) |
| 11340 | Panel - steel corrugation | Panel formed of corrugated steel  | PSC (K.2) |
| 11345 | Flat steel panel          | Panel formed of flat steel  | PSF       |
| 11350 | Panel - inner face        | Inner face of a single-piece panel  | PIP (K.3) |
| 11360 | Panel - outer face        | Outer face of a single-piece panel  | POP (K.3) |

#### K.1.12 Panel equivalents

|       |                 |  |           |
|-------|-----------------|--|-----------|
| 11380 | Side bar socket | Socket in the stanchion and end frames to support a side bar   | SBS (K.1) |
| 11390 | Side bar        | Horizontal bar in a platform-based container connecting stanchions and end frames to provide cargo restraint | SBR (K.1) |
| 11400 | Bulkhead        | Demountable panel which acts as an end wall in a platform-based container to provide cargo restraint         | PBK (K.1) |

| Numerical code  | Name                       | Description   | CEDEX code          |
|---|----------------------------|---|---------------------|
| 11410   | Stanchion                  | Vertical members at each side rail in a platform-based container to provide cargo restraint   | STC (K.1)           |
| 11420   | Stanchion lashing chain    | Lashing chain for the stanchion lashing system, 11440   | SLC (K.1)           |
| 11430   | Stanchion chain hook       | Hook for the stanchion lashing system, 11440  | SCH (K.1)           |
| 11440   | Stanchion lashing system   | System used in open-side containers to provide mutual support to stanchions by means of chains and hooks running between stanchions on opposite sides                                 | SLS (K.1)           |
| 11445   | Stanchion pocket           | Recess in the bottom side rail of a platform container that holds a stanchion in place  | STP                 |
| 11450   | Side gate assembly         | Removable frame system used for cargo restraint   | SGA (K.1)           |
| 11460   | Side gate frame            | Frame of the gate system  | SGF (K.1)           |
| 11470   | Side gate mesh             | Mesh used inside the frame of a gate system   | SGM (K.1)           |
| 11480   | Side gate pin              | Pin used in locking a gate in position  | SGP (K.1)           |
| 11490   | Side post (inner)          | Reinforcing vertical member, placed between top and bottom, side or end rails, on the inside of the panel, in a side or end wall  | SPI (K.2)           |
| 11500   | Side post (outer)          | Reinforcing vertical member, placed between top and bottom, side or end rails, on the outside of the panel, in a side or end wall   | SPO (K.1)           |
| <b>K.1.13 Rails</b> (including end transverse members and tunnel rails) |                            |   |                     |
| 11510   | Rails assembly             | Longitudinal and transverse structural members at the bottom, top, and sides of the container and sides of the tunnel   | RLA (K.1, K.2)      |
| 11520   | Cam keeper                 | Device at the rear top and bottom end transverse member which retains the locking bar cam when the locking bar mechanism is locked closed   | RCK (K.3)           |
| 11530   | Rail doubling plate        | Additional plate attached to the container roof, adjacent to the top corner fittings, providing protection from misuse of spreader equipment  | RDP (K.2)           |
| 11540   | Rail gusset                | Reinforcement plate either between the corner fitting and side or end rail, or inside the front and rear lower rails  | RLG (K.1, K.2, K.3) |
| 11550   | Rail inner web             | Closing plate on the inside of the front and rear lower rails. Used as an alternative to the rail gusset, 11540   | RIW (K.3)           |
| 11555   | Rail cone protector recess | Recess or cut-out in a front or door sill web and lower flange, adjacent to corner fitting, used to prevent damage to the rail when securing container to twist lock or stacking cone | RCI                 |
| 11560   | Rail lower flange          | Lower flange of bottom side and end rails   | RLF (K.1, K.3)      |
| 11570   | Rail upper flange          | Upper flange of top, side and end rails   | RUF (K.3)           |
| 11580   | Rail web                   | Web side and end rails  | RLW (K.1, K.3)      |

| Numerical code | Name                             | Description   | CEDEX code |
|----------------|----------------------------------|---|------------|
| 11585          | Gooseneck tunnel rail            | Side longitudinal rail of gooseneck tunnel  | RTL        |
| 11590          | Rain gutter                      | Part of, or attachment to, rear upper end rail to divert water away from door frame   | RNG (K.3)  |
| 11600          | Stanchion socket                 | Socket which holds the stanchion, 11410   | SST (K.1)  |
| 11610          | Rail doubler plate               | Doubler plate on top and bottom rails   | RUP (K.3)  |
| 11620          | Rail whole section               | The complete transverse section of a rail   | RLT (K.3)  |
| 11623          | Vertical door stiffener panel    | NOTE - Preliminary assignment; to be defined in a future edition                      | DSM        |
| 11625          | Door stiffener - bottom edge     | Horizontal reinforcing member of door, installed on bottom edge                       | DSB        |
| 11626          | Door stiffener - centreline edge | Horizontal reinforcing member of door, installed along vertical midline of door       | DSC        |
| 11627          | Door stiffener - hinge side edge | Vertical reinforcing member of door, installed along hinge side                       | DSH        |
| 11628          | Door stiffener - top edge        | Horizontal reinforcing member of door, installed on top edge                          | DST        |
| 11630          | Floor support angle              | Angle attached to bottom side rail which supports edge of floor                       | FSA        |
| 11640          | Steel plate of combination floor | Longitudinal steel floor sections, used in conjunction with alternating wood sections | FSP        |
| 11650          | Header extension plate           | Extended header plate used to protect roof from damage                                | HEP        |
| 11660          | Rail - interior component        | Interior portion of multi-piece rail  | RLI        |
| 11661          | Rail - exterior component        | Exterior portion of multi-piece rail  | RLE        |
| 11665          | Swinging or removable header     | Upper transverse rail that is hinged and/or removable                                 | RRT        |
| 11666          | Rear header latch                | Latch securing swinging rear header in closed position                                | RHL        |
| 11667          | Rear header-hinge lug            | Hinge lug for swinging rear header  | RLL        |
| 11668          | Header pin handle                | Hinge pin on removable header   | HPH        |
| 11669          | Header pin chain                 | Chain securing header pin handle to removable header member                           | HPC        |
| 11670          | Piggybacker rail                 | Reinforcement on side bottom rail for piggybacker lifting                             | RPP        |

| Numerical code            | Name                         | Description  | CEDEX code     |
|---------------------------|------------------------------|--|----------------|
| <b>K.1.14 Tarpaulin</b>   |                              |  |                |
| 11680                     | Tarpaulin assembly           | Tarpaulin, cover or tilt for open-top and open-side containers   | TNA (K.1, K.2) |
| 11690                     | Tarpaulin belt               | Webbing or similar providing support to a tarpaulin (longitudinally), in addition to roof bows (transversally)                 | TNB (K.2)      |
| 11700                     | Tarpaulin rubber cord        | Rubber cord secured to the tarpaulin and TIR cord ring under tension to tighten tarpaulin                                      | TNC (K.2)      |
| 11710                     | Tarpaulin customs seal point | Device to permit the ends of the TIR cord to be customs sealed   | TNS (K.2)      |
| 11720                     | Tarpaulin grommet            | Ring set in the tarpaulin that fits over the TIR cord ring   | TNG (K.2)      |
| 11730                     | Tarpaulin fixing strip       | Strip used to fix tarpaulin semi-permanently on some open-top and open-side containers   | TNX (K.2)      |
| 11735                     | Tarpaulin pinhole            | Hole in tarpaulin for securing pin   | TPH            |
| 11740                     | TIR cord                     | Cord specified by customs convention which, passed through the TIR cord ring, seals the container                              | TIC (K.2)      |
| 11750                     | TIR cord ring                | Ring set in the container which secures the tarpaulin by means of the grommets, and which takes the TIR cord                   | TIR (K.2)      |
| <b>K.1.15 Tunnel</b>      |                              |  |                |
| 11760                     | Tunnel assembly              | Recess in the front portion of a container understructure to accommodate the raised portion of a gooseneck chassis             | TUA (K.1)      |
| 11770                     | Tunnel cross-member          | Transverse members providing support to the tunnel plate   | TUC (K.1)      |
| 11780                     | Tunnel plate                 | Steel plate separating the tunnel recess from the interior of the container  | TUP (K.1)      |
| 11790                     | Tunnel bolster               | Transverse member which supports the rearmost portion of the tunnel  | TUB (K.1)      |
|                           | Tunnel rail                  | [See K.1.13, Rails]  |                |
|                           | Tunnel outriggers            | [See K.1.4, Cross-members]   |                |
| <b>K.1.16 Ventilators</b> |                              |  |                |
| 11800                     | Ventilator assembly          | Device permanently attached to the side (or front) panel of a container which permits air exchange with the ambient atmosphere | VRA (K.2)      |
| 11810                     | Ventilator baffle            | Baffle inside the ventilator which prevents ingress of sea water   | VRB (K.2)      |
| 11820                     | Ventilator cover             | Outermost portion of the ventilator, which is a part of the exterior of the container  | VRR (K.2)      |
| 11830                     | Ventilator grid              | Lower portion of the ventilator which is either pierced with holes or formed with mesh to permit passage of air                | VRG (K.2)      |

| Numerical code                              | Name   | Description  | CEDEX code |
|---|--|--|------------|
| <b>K.1.17 Miscellaneous</b>                 |  |  |            |
| 11840                                       | Fumigating nozzle                            | Nozzle set in the side (or front) panel which permits fumigation of the container  | FUN (K.2)  |
| 11850                                       | Joint between components                     | Junction where components are welded or fastened together  | VJT        |
| 11860                                       | Stacking cone and chain - fixed or removable | Cone-shaped projection, placed in a corner fitting of a container, used to secure the corresponding corner fitting of a container stacked above it | SCC        |
| 11890                                       | (Not applicable)                             | (Dummy code used when a component code is not applicable)  | ZZZ        |
| <b>K.1.18 Hardware</b>                      |  |  |            |
| 11900                                       | Hardware                                     | Screws, nuts, and bolts  | HWR        |
| 11910                                       | Lock bolt                                    | Structural fastener secured with a collar that is swaged to the bolt   | LBT        |
| <b>K.1.19 Major Assemblies</b>              |  |  |            |
| 12000                                       | Cargo container                              | Entire container   | MCO        |
| 12010                                       | Sidewall - complete                          | Complete assembly of all sidewall panels, including posts and stringers, on one side of a container  | SAA        |
| 12020                                       | Endwall - complete                           | Complete assembly of all endwall (not door) panels, including posts and stringers, at one end of container   | EAA        |
| 12030                                       | Roof - complete                              | Entire roof assembly, including bows if applicable   | RAA        |
| 12040                                       | Understructure - complete                    | Entire understructure of cross-members, forklift pockets, and gooseneck tunnel components (as applicable)  | UAA        |
| 12045                                       | Drop (collapsible) end frame                 | End frame structural components in a hinged assembly that may be lowered to the floor surface of a platform-based container                        | DEF        |
| 12050                                       | Door, complete (without hardware)            | Entire door, including stiffeners, but not including hardware and gaskets  | DAA        |
| 12060                                       | Door, complete (with hardware)               | Entire door, including stiffeners, hardware (except hinges), and gaskets   | DAH        |
| <b>K.4 Components applicable to marking</b> |  |  |            |
| <b>K.4.1 ISO marking</b>                    |  |  |            |
| 40010                                       | Country code                                 | Code designating the country of registration of the owner, in accordance with ISO 3166   | MCC (K.3)  |
| 40020                                       | Identification marking set                   | Owner's code, 40040; serial number and check digit, 40050; size and type code, 40060; in accordance with ISO 6346                                  | MIS (K.2)  |

| Numerical code              | Name                              | Description   | CEDEX code     |
|-----------------------------|-----------------------------------|---|----------------|
| 40030                       | Mass marking                      | Maximum gross and tare weights, in accordance with ISO 6346; payload  | MMI (K.3)      |
| 40040                       | Owner's code                      | Owner's mark, in accordance with ISO 6346   | MOC (K.3)      |
| 40050                       | Serial number and check digit     | Number of the equipment plus check digit, in accordance with ISO 6346   | MSN (K.3)      |
| 40060                       | Size/type marking                 | Code designating the size and type of the equipment, in accordance with ISO 6346  | MST (K.3)      |
| 40070                       | Height marking                    | Optional height marks for containers of height greater than 2,6 m (8,5 ft), in accordance with ISO 6346:1984, Annex H   | MHT            |
| 40072                       | High-cube stripe                  | Alternating oblique striped marking fitted to upper rails used to distinguish 1AAA, 1BBB and 1CCC (high-cube) containers                                      | MHC            |
| 40080                       | Caution marking                   | Sign warning of overhead electrical danger, in accordance with ISO 6346:1984, Annex C   | MCA            |
| 40090                       | Consolidated data plate           | Single consolidated data plate prepared according to a means of combining various labels and plates provided for in ISO 6359                                  | MPD            |
| 40100                       | Markings - full set               | Entire set of markings on a container   | MFS            |
| 40110                       | Markings - single digit/character | Single digit/character of a serial number marking   | MSD            |
| 40115                       | UIC decal                         | Marking fitted to the side of a container indicating registration of the container with a member carrier of the Union Internationale des Chemins de Fer (UIC) | MUI            |
| <b>K.4.2 Other markings</b> |                                   |   |                |
| 40200                       | CSC plates                        | Plate on which data required by the safety convention is displayed  | MPS (K.3)      |
| 40210                       | ACEP marking                      | Marking required of a container that is operated under an approved continuous examination programme prescribed in the CSC                                     | MCE            |
| 40220                       | Class survey marking              | Marking of classification societies and other organizations approved by the competent authority   | MCS            |
| 40230                       | Customs plate                     | Plate on which customs approval data is displayed   | MPC (K.3)      |
| 40240                       | Owner's plate                     | Plate on which the owner's name, and sometimes address, is displayed  | MPO (K.3)      |
| 40250                       | Manufacturer's plate              | Plate on which the manufacturer's name and/or logotype, and sometimes other data, is displayed  | MPM (K.3)      |
| 40260                       | Cargo label plate                 | Area, usually marked in black, for cargo labels   | MPL (K.2)      |
| 40270                       | Tank plate                        | Plate on which data relating to tank containers, including a label and caution mark described in the IMDG Code, is displayed                                  | MPT            |
| 40280                       | Timber chemical treatment         | Plate on which data relating to quarantine treatment of exposed wooden components is displayed  | MTT (K.3)      |
| 40290                       | Other markings                    | Any unspecified marking   | MRU            |
| 40300                       | Owner's logo                      | Owner's logotype  | MOL (K.2, K.3) |

| Numerical code                              | Name                                      | Description   | CEDEX code |
|---|---|---|------------|
| <b>K.5 Components of thermal containers</b> |   |   |            |
| <b>K.5.1 Air opening</b>                    |   |   |            |
| 50010                                       | Air opening assembly                      | Complete porthole assembly to permit passage of cold/hot air to and from the porthole thermal container   | AOA (K.2)  |
| 50020                                       | Valve retainer cam                        | Porthole valve retaining the cam (also called regulating knob) for the valve closing operation (detail of the air opening assembly, 50010)            | VVR (K.2)  |
| 50030                                       | Valve disk                                | Porthole valve disk or valve plate (detail of the air opening assembly, 50010)  | VVD (K.2)  |
| 50040                                       | Valve foil                                | Diffuser to ease/ensure good air distribution behind the air screen; in some cases called "distance ring" (detail of the air opening assembly, 50010) | VVF (K.2)  |
| 50050                                       | Valve gasket                              | Valve disk gasket to ensure proper airtightness (detail of the air opening assembly, 50010)   | VVG (K.2)  |
| 50060                                       | Valve handle                              | Valve-operating handle open/closed (detail of the air opening assembly, 50010)  | VVH (K.2)  |
| 50070                                       | Valve-handle seal                         | Valve-handle seal to ensure proper closure in compliance with the CCC (detail of the air opening assembly, 50010)                                     | VVS (K.2)  |
| 50080                                       | Valve ring                                | Valve rod flange for mounting on the air screen flap (detail of the air opening assembly, 50010)  | VVI (K.2)  |
| 50090                                       | Valve spring                              | Valve rod spring to maintain in open position (detail of the air opening assembly, 50010)   | VVP (K.2)  |
| 50100                                       | Valve axle (rod)                          | Valve rod on which the valve can move from closed to open position and <i>vice versa</i> (detail of the air opening assembly, 50010)                  | VVA (K.2)  |
| 50110                                       | Porthole collar                           | Collar that surrounds the post in a porthole thermal container (detail of the air opening assembly, 50010)  | PHC (K.2)  |
| 50120                                       | Port (modified atmosphere)                | Port to permit injection of special gases into thermal containers to modify the atmosphere  | POM (K.2)  |
| 50130                                       | Plug (modified atmosphere)                | Plug to close port to permit injection of special gases into thermal containers to modify atmosphere  | PLM (K.2)  |
| 50135                                       | Modified-atmosphere door curtain assembly | Complete assembly of door curtain, seal and retaining track   | RCM        |
| 50136                                       | Modified-atmosphere door curtain          | Flexible air seal to retard gas transfer through door   | DCU        |
| 50137                                       | Modified-atmosphere snap ribbon seal      | Seal holding door curtain in place in modified-atmosphere system  | SRS        |
| 50138                                       | Modified-atmosphere port/plug assembly    | Complete assembly for modified-atmosphere port and plug   | POA        |

| Numerical code          | Name                       | Description  | CEDEX code |
|-------------------------|----------------------------|--|------------|
| <b>K.5.2 Air screen</b> |                            |  |            |
| 50150                   | Air screen assembly        | Air screen intermediate panel assembly separating the air inlet from the air outlet  | ASA (K.2)  |
| 50160                   | Air screen flap            | Hinged air screen flap on which the valve assembly is mounted permitting access to the valve and behind inlet or outlet screen   | ASF (K.2)  |
| 50165                   | Air screen gasket          | Gasket for air screen flap   | ASG        |
| 50170                   | Air screen hinge           | Air screen flap hinge  | ASH (K.2)  |
| 50180                   | Air screen lock            | Air screen flap locking device   | ASL (K.2)  |
| 50190                   | Air screen panel           | Inlet or outlet air screen panel to ensure proper air distribution in the container  | ASP (K.2)  |
| 50200                   | Stiffener/splitter         | Inlet or outlet air screen panel stiffener or distance piece to ensure screen flap or valve position as well as air space behind the screen                                      | STF (K.2)  |
| <b>K.5.3 Air duct</b>   |                            |  |            |
| 50250                   | Air duct                   | Component which allows proper air circulation throughout the thermal container   | ADU (K.2)  |
| <b>K.5.4 Flooring</b>   |                            |  |            |
| 50300                   | T-floor assembly           | An aluminium flooring of T-section which permits air-flow, used in thermal containers  | TFA (K.1)  |
| 50310                   | T-floor casting            | An aluminium casting which forms the rear end of the T-floor   | TFC (K.1)  |
| 50320                   | T-floor drain              | Drain hole used in thermal and other containers  | TFD (K.1)  |
| 50322                   | T-floor drain pan          | Pan or sump used to catch fluids drained from the interior of a thermal container  | TPN        |
| 50330                   | T-floor end seal           | Seal that closes off the joint between the T-floor and the rear bottom end transverse member (rear sill)   | TFS (K.1)  |
| 50340                   | T-floor plate              | Front angled plate or curved moulding that seals the front of the T-floor from the refrigerating machinery air outlet  | TFF (K.1)  |
| 50350                   | T-floor gutter             | Curved moulding that seals the side wall panel from the bottom edge of the T-floor   | TFG (K.1)  |
| 50360                   | T-floor plank              | Section of T-floor   | TFP (K.1)  |
| 50370                   | T-floor strip              | Transverse reinforcement on top of the T-floor at either its front or rear end   | TFI (K.1)  |
| 50380                   | T-floor angle bar          | Angle that forces air from the refrigerating machinery down through the T-floor  | TFB (K.1)  |
| 50385                   | Drain plug assembly        | Plug and chain assembly for floor drain  | DRA        |
| 50386                   | Drain plug                 | Plug for floor drain   | DRP        |
| 50389                   | Subfloor                   | Panel assembly covering underside of floor insulation  | PAA        |
| 50395                   | Self-opening drain (Kazoo) | Flexible bladder, fitted to the underside of a T-floor drain, that opens and reseals by hydrostatic pressure to expel fluids that drain from the interior of a thermal container | DKK        |

| Numerical code                               | Name   | Description   | CEDEX code     |
|--|--|---|----------------|
| <b>K.5.5 Panels</b>                          |  |   |                |
| 50450  | Panel edge profile                                   | Profile that closes off the edge of an insulated panel, usually a door panel                        | PEP (K.1, K.3) |
| 50460  | Panel-frame  | Profile that frames the door, usually an insulated type   | PAF (K.3)      |
| 50470  | Battens in insulated panel                           | Battens of raised or recessed type in the interior lining of thermal container side and door panels | PBT (K.3)      |
| 50480  | Panel inner cladding                                 | Inner lining of an insulated panel  | PIC (K.2, K.3) |
| 50490  | Insulation material                                  | Material, usually foam, used for insulation   | PIM (K.1, K.2) |
| 50500  | Panel - internal stiffener                           | Usually in thermal container side walls   | PIS (K.2)      |
| 50510  | Panel - joint capping                                | Curved moulding or angle that closes off join between insulated side wall and roof panels           | PJC (K.2)      |
| 50520  | Panel - joint profile                                | Profile that secures the panel joint capping to the side wall and/or roof panel                     | PJP (K.2)      |
| 50530  | Panel - outer cladding                               | Material on the outside of an insulated panel   | POC (K.2, K.3) |
| 50540  | Panel transverse section                             | Whole transverse section of an insulated panel  | PAT (K.2, K.3) |
| <b>K.5.6 Miscellaneous</b>                   |  |   |                |
| 50600  | Hanging rail assembly                                | Rail for hanging cargo in the container   | HRA (K.2)      |
| 50610  | Hanging rail bar                                     | Bars for hanging cargo in the container   | HRB (K.2)      |
| 50620  | Hanging rail hook                                    | Hook for hanging cargo in the container   | HRH (K.2)      |
| 50630  | Clip-on generator set mounting hole, upper           | Receptacle in front header for clip-on generator set clamping device                                | CHU            |
| 50640  | Clip-on generator set mounting hole, threaded, lower | Threaded receptacle in front corner post for clip-on generator set clamping device                  | CHL            |
| <b>K.6 Components of refrigeration units</b> |  |   |                |
| <b>K.6.1 Compressor - Location: MQNN</b>     |  |   |                |
| 60010  | Compressor, complete (with motor)                    | Compressor assembly and its driving electric motor  | ASY (K.4)      |

| Numerical code | Name                            | Description   | CEDEX code |
|----------------|---------------------------------|---|------------|
| 60020          | Open compressor (without motor) | Compressor assembly without its driving electric motor  | QAS (K.4)  |
| 60030          | Shaft                           | Cylindrical bar to transmit motion by rotation  | SFT (K.4)  |
| 60033          | Shaft seal                      | Seal between compressor shaft and housing   | QSS        |
| 60034          | Crankshaft                      | Rotating member that transmits force to pistons   | CSF        |
| 60035          | Bearing, crankshaft             | Support which holds crankshaft in place   | BSF        |
| 60036          | Gasket, crankshaft assembly     | Seal to prevent leakage between crankshaft and housing  | SSF        |
| 60040          | Cylinder head                   | Cover of the piston chamber above the valve plate   | CYH        |
| 60050          | Cylinder unloader               | Device to cut off the cylinder or to allow communication between high pressure and low pressure to decrease the compressor capacity | CYU        |
| 60060          | Unloader solenoid               | Solenoid coil which operates opening/closing of one cylinder unloader   | CYS (K.4)  |
| 60070          | Cylinder head cover gasket      | Gasket to seal the cylinder head cover on the compressor body   | CYG (K.4)  |
| 60080          | Cylinder                        | Chamber in which one piston moves   | CYA (K.4)  |
| 60090          | Piston                          | Sliding piece to compress refrigeration gas in the cylinder   | PTA (K.4)  |
| 60100          | Piston rod                      | Bar between the shaft and the piston  | PTR (K.4)  |
| 60110          | Piston ring                     | Metallic circular spring with a high relative outward expanding strain used around the piston to make a gastight joint              | PTB (K.4)  |
| 60120          | Compressor pulley               | Wheel to transmit motion to the compressor shaft  | PUQ (K.4)  |
| 60130          | Motor pulley                    | Pulley to transmit motion from the motor shaft  | PUM (K.4)  |
| 60135          | Drive belt                      | Tensioning device to impart torque to a pulley  | DRB (K.4)  |
| 60140          | Suction service valve           | Valve to allow operations such as opening/closure or pressure measurement of the input refrigeration gas (low pressure)             | VSU (K.4)  |
| 60150          | Discharge service valve         | Valve to allow operations such as opening/closure or pressure measurement of the output refrigeration gas (high pressure)           | VDI (K.4)  |
| 60155          | Discharge service valve cap     | Cover for discharge service valve   | VDC        |
| 60160          | High-pressure cutout            | Safety device to switch off the system in case of pressure above a fixed limit  | CHP (K.4)  |
| 60170          | Low-pressure cutout             | Safety device to switch off the system in case of pressure below a fixed limit  | CLP (K.4)  |
| 60175          | Snubber                         | Device to smooth out refrigerant flow in compressor discharge line  | SNB        |
| 60180          | Oil cutout                      | Safety device to switch off the system in case of oil pressure below a fixed limit  | CLO        |

| Numerical code | Name                         | Description  | CEDEX code |
|----------------|------------------------------|--|------------|
| 60190          | Oil pump                     | Pump for distributing oil under pressure through the compressor to lubricate moving parts              | PPO        |
| 60200          | Oil sight glass              | Sight glass for checking the oil level   | SGO        |
| 60210          | Oil sump gasket              | Gasket seal between the oil sump and the compressor body   | SGS (K.4)  |
| 60220          | Oil charge                   | Quantity of oil  | OCH (K.4)  |
| 60230          | Others                       | Other compressor devices not listed  | QMI (K.4)  |
| 60240          | Reed (or ring valves)        | Intake and exhaust valves for refrigerant flow through compressor cylinders                            | RRV        |
| 60245          | Valve plate                  | Plate on cylinder with valves  | PVA        |
| 60250          | Motor                        | Motor assembly excluding the compressor items  | MAS (K.4)  |
| 60260          | Stator                       | Stationary winding part of the motor   | STA (K.4)  |
| 60270          | Rotor                        | Winding part of the motor that revolves in the stator  | ROT (K.4)  |
| 60280          | Collector                    | Conductor maintaining contact between the rotor and the stator   | COL (K.4)  |
| 60290          | Collector brush              | Carbon electrical conductor that makes sliding contact on the collector                                | COB (K.4)  |
| 60300          | Bearing                      | Part of the motor to support the revolving rotor in the centre of the stator (not specified elsewhere) | BNG (K.4)  |
| 60310          | Terminal mounting plate      | Board for making electrical connections on the compressor motor  | TMP        |
| 60320          | Overload protection switch   | Safety device to switch off the system in case of overloading of the motor                             | POL        |
| 60330          | Others (motor)               | Other compressor-motor devices not listed  | MIN (K.4)  |
| 60340          | Fixing/securing device       | Element fixing the compressor/motor assembly to the frame  | FIX (K.4)  |
| 60350          | Compression vibration damper | Device between compressor motor and frame to absorb vibrations   | QDA        |

#### K.6.2 Condenser - Location: MKNN

|       |                                 |  |           |
|-------|---------------------------------|--|-----------|
| 60510 | Coil assembly                   | Series of pipes connected in rows to increase heat exchange              | CAS (K.4) |
| 60515 | Tube sheet distributor          | Plate which holds individual tubes in position within coil               | TSH       |
| 60516 | Condenser coil mounting bracket | Bracket holding condenser coil in place                                  | CCB       |
| 60520 | Inlet distributor               | Series of pipes through which the refrigeration gas enters the condenser | TIN       |
| 60530 | Outlet collector                | Series of pipes through which the refrigeration gas leaves the condenser | TOU       |

| Numerical code                           | Name                       | Description  | CEDEX code |
|--|----------------------------|--|------------|
| 60540                                    | Bent tube (return tube)    | Bent tubes to connect one row of pipes to another                                  | TBE (K.4)  |
| 60550                                    | Straight tube              | Tube to allow refrigeration gas circulation through the fins of the condenser      | TPI (K.4)  |
| 60555                                    | Coil fins                  | Fins expediting heat transfer from tubes   | CFI        |
| 60560                                    | Motor                      | Motor assembly to revolve the fan  | MAS (K.4)  |
| 60570                                    | Stator                     | Stationary winding part of the motor   | STA (K.4)  |
| 60580                                    | Rotor                      | Winding part of the motor that revolves in the stator                              | ROT (K.4)  |
| 60590                                    | Collector                  | Conductor maintaining contact between the rotor and the stator                     | COL (K.4)  |
| 60600                                    | Collector brush            | Carbon electrical conductor that makes sliding contact on the collector            | COB (K.4)  |
| 60610                                    | Bearings                   | Part of the motor to support the revolving rotor in the centre of the stator       | BNG (K.4)  |
| 60620                                    | Terminal mounting plate    | Board for making electrical connections on the condenser motor                     | TMP        |
| 60630                                    | Overload protection switch | Safety device to switch off the system in case of overload of the motor            | POL        |
| 60640                                    | Fixing/securing device     | Element fixing the condenser/motor assembly to the frame                           | FIX (K.4)  |
| 60650                                    | Fan                        | Assembly of blades to produce a flow of air through the coil                       | FAN        |
| 60680                                    | Refrigerant inlet valve    | Device for closing/opening the refrigerant inlet flow                              | VFI (K.4)  |
| 60690                                    | Refrigerant outlet valve   | Device for closing/opening the refrigerant outlet flow                             | VFO (K.4)  |
| 60700                                    | Water-cooled condenser     | Heat exchanger in which refrigerant is changed from gas to liquid by water cooling | CWA        |
| 60710                                    | Water inlet valve          | Device for closing/opening the water inlet flow in the water-cooled condenser      | VWI (K.4)  |
| 60720                                    | Water outlet valve         | Device for closing/opening the water outlet flow in the water-cooled condenser     | VWO (K.4)  |
| 60730                                    | Others                     | Other condenser devices not listed   | KMI (K.4)  |
| <b>K.6.3 Evaporator - Location: MVNN</b> |                            |  |            |
| 60810                                    | Coil assembly              | Series of pipes connected in rows to increase heat exchange                        | CAS (K.4)  |
| 60820                                    | Inlet tubing               | Series of pipes through which the refrigerant enters the evaporator                | TIN (K.4)  |
| 60830                                    | Outlet tubing              | Series of pipes through which the refrigerant leaves the evaporator                | TOU (K.4)  |
| 60840                                    | Bent tubes (return tube)   | Bent tubes to connect one row of pipes to another                                  | TBE (K.4)  |
| 60850                                    | Straight tube              | Tube to allow refrigeration gas circulation through the fins of the evaporator     | TPI (K.4)  |

| Numerical code | Name                                  | Description   | CEDEX code |
|----------------|---------------------------------------|---|------------|
| 60855          | Coil fins                             | Fins expediting heat transfer from tubes  | CFI        |
| 60856          | Evaporator coil heaters               | Electrical resistors for defrosting the evaporator or heating the inside of the container | HVC (K.6)  |
| 60857          | Drain pan defrost heaters             | Electrical resistors for defrosting the drain pan or heating the container                | HDP (K.6)  |
| 60858          | Overheat protection switch ["klixon"] | Device which switches off heaters in case of excessive temperature                        | KLX (K.6)  |
| 60859          | Drain tube defrost heaters            | Electrical resistors provided on the drain tube for defrosting                            | DTH (K.7)  |
| 60860          | Motor                                 | Motor assembly to revolve the fan   | MAS (K.4)  |
| 60861          | Drain port defrost heaters            | Electrical resistors provided on the drain port for defrosting                            | DPH        |
| 60870          | Stator                                | Stationary winding part of the motor  | STA (K.4)  |
| 60880          | Rotor                                 | Winding part of the motor that revolves in the stator                                     | ROT (K.4)  |
| 60890          | Collector                             | Conductor maintaining contact between the rotor and the stator                            | COL (K.4)  |
| 60900          | Collector brush                       | Carbon electrical conductor that makes sliding contact on the collector                   | COB (K.4)  |
| 60910          | Bearings                              | Part of the motor to support the revolving rotor in the centre of the stator              | BNG (K.4)  |
| 60920          | Terminal mounting plate               | Board for making electrical connections on the evaporator motor                           | TMP        |
| 60930          | Overload protection switch            | Safety device to switch off the system in case of overload of the motor                   | POL        |
| 60940          | Fixing/securing device                | Element fixing the evaporator/motor assembly to the frame                                 | FIX (K.4)  |
| 60950          | Fan                                   | Assembly of blades to produce a flow of air through the coil                              | FAN (K.4)  |
| 60970          | Others                                | Other evaporator devices not listed   | VMI (K.4)  |

#### K.6.4 Electrical power - Location: MENN

|       |                               |   |     |
|-------|-------------------------------|---|-----|
| 61010 | Electrical plug, 460 V        | Device to connect the 460 V power cable to the power supply receptacle    | EPL |
| 61015 | Electrical plug, 230 V        | Device to connect the 230 V power cable to the power supply receptacle    | EPE |
| 61020 | Cable, 460 V                  | Power line (460 V) to transmit electrical power to the refrigeration unit | ECB |
| 61025 | Cable, 230 V                  | Power line (230 V) to transmit electrical power to the refrigeration unit | ECC |
| 61026 | Cable indicator sleeve, 460 V | Identifying label on 460 V power cable                                    | ECD |

| Numerical code | Name                                      | Description  | CEDEX code |
|----------------|---|--|------------|
| 61027          | Cable indicator sleeve, 230 V             | Identifying label on 230 V power cable   | ECE        |
| 61030          | On/off main switch                        | Manual device which connects and breaks the refrigeration unit electric circuit  | SMN (K.5)  |
| 61040          | Voltage selection switch                  | Device which allows voltage accepted by the unit to be adapted to the power supply available                             | SVS (K.5)  |
| 61045          | Voltage selection switch knob             | Knob for voltage selection switch  | SVK        |
| 61046          | Voltage selection switch door             | Cover for voltage selection switch compartment   | SVD        |
| 61047          | Voltage selection switch door hinge       | Hinge for cover for voltage selection switch compartment   | SVH        |
| 61050          | Circuit breaker, 460 V                    | Safety device which breaks the 460 V electric circuit if a fault develops  | CBR        |
| 61055          | Circuit breaker, 230 V                    | Safety device which breaks the 230 V electric circuit if a fault develops  | CBB        |
| 61060          | Power transformer                         | Apparatus which converts electrical voltage from the supply voltage to operating voltage                                 | TFM        |
| 61070          | Phase-reversal device                     | Device which reverses the electric current phase order in case of unsuitable phase order of the power supply             | PRS (K.5)  |
| 61080          | Power supply terminal plate               | Electrical connections which receive the power supply directly from the mains  | EPS (K.5)  |
| 61090          | Compressor motor capacitor                | Apparatus for accumulating electricity which allows the compressor motor to be started                                   | CAQ        |
| 61100          | Evaporator fan motor capacitor            | Apparatus for accumulating electricity which allows the evaporator motor to be started                                   | CAV        |
| 61110          | Condenser fan motor capacitor             | Apparatus for accumulating electricity which allows the condenser motor to be started                                    | CAK        |
| 61120          | Compressor contactor                      | Contacting device which connects or breaks the compressor electric circuit according to the control box order            | CQA (K.5)  |
| 61130          | Compressor low-speed contactor            | Contacting device which connects or breaks the compressor low-speed electric circuit according to the control box order  | CQL (K.5)  |
| 61140          | Compressor high-speed contactor           | Contacting device which connects or breaks the compressor high-speed electric circuit according to the control box order | CQH (K.5)  |
| 61150          | Evaporator contactor                      | Contacting device which connects or breaks the evaporator electric circuit according to the control box order            | CVL (K.5)  |
| 61160          | Evaporator fan motor low-speed contactor  | Contacting device which connects or breaks the evaporator low-speed electric circuit according to the control box order  | CVL (K.5)  |
| 61170          | Evaporator fan motor high-speed contactor | Contacting device which connects or breaks the evaporator high-speed electric circuit according to the control box order | CVH (K.5)  |

| Numerical code                                   | Name                                     | Description  | CEDEX code |
|--|--|--|------------|
| 61180  | Condenser fan motor contactor            | Contactors which connect or break the condenser electric circuit according to the control box order            | CKA (K.5)  |
| 61190  | Condenser fan motor low-speed contactor  | Contactors which connect and break the condenser low-speed electric circuit according to the control box order | CKL (K.5)  |
| 61200  | Condenser fan motor high-speed contactor | Contactors which connect or break the condenser high-speed electric circuit according to the control box order | CKH (K.5)  |
| 61210  | Defrost/heating resistors contactor      | Contactors which connect or break the heating resistor electric circuit according to the control box order     | CHR (K.5)  |
| 61220  | Phase contactor                          | Contactors which set up the phase order according to the phase reversal system                                 | CPH (K.5)  |
| 61230  | Terminal                                 | Point where electrical/electronic components are connected   | CON        |
| 61240  | Wiring                                   | System of wires between electrical components  | WIR (K.5)  |
| 61250  | Others                                   | Other electrical power devices not listed  | EMI (K.4)  |
| <b>K.6.5 Regulation/control - Location: MCNN</b> |  |  |            |
| 61410  | Controller                               | Device which controls essential functions of the refrigeration unit, especially temperature                    | CTR (K.5)  |
| 61415  | Microprocessor controller                | Controller whose functions are governed by a microprocessor chip   | CPU        |
| 61420  | Mechanical temperature recorder          | Complete assembly of device which records the inside temperature of the container                              | REC        |
| 61425  | Recorder clock                           | Clock which advances the recorder chart  | RCL        |
| 61426  | Recorder mechanism                       | Mechanical device driving the stylus of temperature recorder   | RCR        |
| 61430  | Timer                                    | Device which controls and sets up delays between the different functioning modes of the refrigeration unit     | TIM (K.5)  |
| 61435  | Recording chart                          | Paper record of return-air temperature during a time interval  | RCH        |
| 61437  | Recording chart battery                  | NOTE - Preliminary assignment; to be defined in a future edition   | RCB        |
| 61440  | Stylus                                   | Point which records the temperature as a function of time  | STY (K.5)  |
| 61441  | Stylus lifter                            | Arm which engages and disengages stylus from contact with recording chart                                      | STL        |
| 61445  | Electronic recorder/data-logger          | Device which records the operating conditions of the unit for retrieval by electronic means                    | ERD        |

| Numerical code | Name  | Description  | CEDEX code |
|----------------|---|--|------------|
| 61450          | Thermostat                                  | Device which regulates the container inside temperature according to the set-point temperature | TMT (K.5)  |
| 61460          | Record sensor probe                         | Apparatus which indicates the container temperature to the recorder                            | SRE (K.5)  |
| 61470          | Control sensor (return air)                 | Apparatus which indicates the temperature of the return-air to the controller                  | SRA        |
| 61480          | Control sensor (supply air)                 | Apparatus which indicates the temperature of the supply air to the controller                  | SSA        |
| 61490          | Hourmeter                                   | Clock which records the compressor running hours   | HMT        |
| 61500          | Thermistor ("Simpson") sensor               | Apparatus which indicates the temperature to the thermometer jack                              | SSY        |
| 61510          | Thermistor ("Simpson") jack                 | Receptacle where the temperature meter can be connected  | SYJ        |
| 61520          | Electronic recorder sensor (return air)     | Sensor which indicates the temperature to the recorder return channel                          | SER        |
| 61523          | Electronic recorder sensor (supply air)     | Sensor which indicates the temperature to the recorder supply channel                          | SES        |
| 61524          | Defrost timer                               | Clock which controls the time interval between two defrostings                                 | TDF (K.6)  |
| 61525          | Manual defrost                              | Manual device which allows the defrosting to start   | SMD (K.6)  |
| 61526          | Defrost termination switch                  | Device which switches off the defrosting of the evaporator                                     | SDT (K.6)  |
| 61527          | Evaporation coil defrost temperature sensor | Device which controls the defrost cycle by sensing temperature                                 | EVS        |
| 61528          | Air pressure switch                         | Device to detect pressure difference across evaporator coil for defrost initiation             | APS (K.6)  |
| 61530          | Defrost relay                               | Relay which controls the defrosting of the evaporator coil                                     | RDE (K.5)  |
| 61535          | Defrost interval selector switch            | Switch to select choice of defrost intervals   | DIS        |
| 61536          | Defrost interval selector switch knob       | Knob fitted to shaft of defrost interval selector switch                                       | DIK        |
| 61540          | Phase-reversal relay                        | Relay energizing either of two electrical phase contactors                                     | RPR        |
| 61550          | Timer relay                                 | Relay which controls the start-up of the electric components of the refrigeration unit         | RTM (K.5)  |
| 61560          | Heating relay                               | Relay which operates the heating resistors   | RHR (K.5)  |

| Numerical code | Name                                      | Description  | CEDEX code |
|----------------|---|--|------------|
| 61570          | In-range relay                            | Relay which operates the "in-range" light when the container is in the correct temperature range                                   | RIR (K.5)  |
| 61580          | Cooling relay                             | Relay which operates the "cooling" light when the compressor is working  | RFC (K.5)  |
| 61590          | Unloading relay                           | Relay which operates the unloading of the compressor cylinders when the container has reached the set-point temperature            | RCU (K.5)  |
| 61600          | Compressor cooling relay (quench)         | Relay which operates the quench valve  | RQQ        |
| 61610          | Compressor overload relay                 | Relay which switches off the compressor motor in case of overload  | ROL (K.5)  |
| 61620          | Partial cool relay                        | Relay which operates the "partial cool" light when the compressor is working at reduced power (temperature close to the set-point) | RPC (K.5)  |
| 61630          | Mother electronic board                   | Main electronic board which is connected to all the other electronic boards  | BMN (K.5)  |
| 61640          | Control electronic board                  | Electronic board which manages all the controller functions  | BCT (K.5)  |
| 61650          | Phase reversal electronic board           | Electronic board which controls the reversal of the phase sequence   | BPR (K.5)  |
| 61660          | Power + supply in range electronic board  | Electronic board which controls the power supply and the temperature inside the container  | BMS (K.5)  |
| 61670          | Timing + current control electronic board | Electronic board which controls the motor starting sequence and the electric current of the modulating valves                      | BCC (K.5)  |
| 61680          | Temperature control electronic board      | Electronic board which controls the temperature inside the container   | BTC (K.5)  |
| 61690          | Relay electronic board                    | Electronic board to which all the various relays are connected   | BRY (K.5)  |
| 61700          | Amplifier electronic board                | Electronic board which amplifies the data coming from the various sensors  | BAM (K.5)  |
| 61710          | Temperature display                       | Device which displays the temperature of the supply or return air  | TDI (K.5)  |
| 61715          | Temperature simulator switch              | Switch to mimic different temperature to control than actual one   | TSS        |
| 61720          | Transformer, control circuit              | Apparatus which converts electrical voltage from the supply voltage to that required in the control circuit                        | TRF        |
| 61730          | Fuse                                      | Short piece of wire which melts and breaks the control circuit if a fault develops in it   | FUS (K.5)  |
| 61735          | Fuse holder                               | Retainer for fuses   | FHD        |
| 61740          | Monitor lights                            | Device which indicates the running condition of the refrigeration unit   | LIT (K.5)  |

| Numerical code | Name                                       | Description  | CEDEX code |
|----------------|--|--|------------|
| 61750          | Remote monitoring plug                     | Device which allows the motor start-up sequence to be cancelled  | SOR (K.5)  |
| 61755          | Remote monitoring receptacle cap and chain | Cover and retainer for remote-monitoring receptacle  | MRC        |
| 61760          | Remote monitoring plug                     | Device to connect the remote-monitoring device   | MRP (K.5)  |
| 61765          | Condenser pressure switch                  | Device which operates the condenser fans according to the discharge pressure of the compressor   | SPK (K.6)  |
| 61766          | Water-cooled condenser pressure switch     | Device which switches off the condenser fans when the water-cooled condenser is connected  | SPW (K.6)  |
| 61770          | Override delay switch                      | Device which allows the motor start-up sequence to be cancelled  | SOR (K.5)  |
| 61775          | Regulation terminals                       | Connection points for regulation electrical components   | CRE        |
| 61780          | Connections                                | Points where electric/electronic components are connected  | CON (K.5)  |
| 61790          | Operation test (toggle) switch             | Device which allows simulation of a temperature different from the set-point in order to test the refrigeration unit                           | TSW (K.5)  |
| 61795          | Set-point selector (digital)               | Digital selection switch(es) to set the required temperature to be maintained  | SPS        |
| 61796          | Dial set-point thermostat                  | Rheostat (including knob) to set the required temperature to be maintained   | THE        |
| 61800          | Others                                     | Other regulation/control devices not listed  | CMI (K.4)  |
| <b>K.6.6</b>   | <b>"Defrost/heating" is deleted</b>        |  |            |
| <b>K.6.7</b>   | <b>Piping - Location: MPNN</b>             |  |            |
| 62010          | Quench valve                               | Device which allows refrigeration of the compressor during the partial cool sequence and/or when the suction modulating valve is nearly closed | VQA (K.6)  |
| 62020          | Quench valve body                          | Mechanical structure of the quench valve   | VQB (K.6)  |
| 62030          | Quench valve solenoid                      | Solenoid coil which operates the quench valve solenoid   | VQS (K.6)  |
| 62040          | Suction-modulating valve                   | Device which allows suction modulation of the compressor during the partial control  | VMA (K.6)  |
| 62050          | Modulating valve body                      | Mechanical structure of the modulating valve   | VMB (K.6)  |
| 62060          | Modulating valve solenoid                  | Solenoid coil which operates the modulating valve  | VMS (K.6)  |

| Numerical code | Name                              | Description   | CEDEX code |
|----------------|-----------------------------------|---|------------|
| 62070          | Suction solenoid valve            | Device which is opened when the temperature inside the container is far from the set point and closed when it is close to it (partial cool) | VSA (K.6)  |
| 62080          | Suction solenoid body             | Mechanical structure of the suction valve   | VSB (K.6)  |
| 62090          | Suction valve solenoid            | Solenoid which operates the suction valve   | VSS (K.6)  |
| 62100          | Hot-gas modulating valve          | Device which allows evaporator defrosting and/or temperature control by injection of hot refrigerant into the suction-gas line              | VGA        |
| 62110          | Hot-gas modulating valve body     | Mechanical structure of the hot-gas modulating valve  | VGB (K.6)  |
| 62120          | Hot-gas modulating valve solenoid | Solenoid which operates the hot-gas modulating valve  | VGS (K.6)  |
| 62130          | Expansion valve                   | Device which allows expansion of the refrigerant into the evaporator and regulates the super-heat of the gas from the evaporator            | VEX (K.6)  |
| 62140          | Feeler bulb                       | Sensor which indicates the temperature of the gas leaving the evaporator to the expansion valve   | BOH (K.6)  |
| 62145          | Pressure regulator                | Device to control pressure out of the compressor  | PRG        |
| 62147          | Throttling valve                  | Device metering the flow of refrigerant for temperature control   | VTH        |
| 62150          | Heat exchanger                    | Device which allows exchange of heat between hot gas and cold liquid in order to increase the efficiency of the refrigeration system        | HEX (K.6)  |
| 61260          | Suction-line insulation           | Material which prevents heat transfer in the suction line   | ISL (K.6)  |
| 62170          | Liquid-line service valve         | Device which regulates the liquid flow from the condenser   | VLL (K.6)  |
| 62180          | Moisture indicator                | Device which indicates if there is moisture in the refrigerant charge   | SGI (K.6)  |
| 62190          | Drier filter                      | Device which allows the refrigerant charge to be dried  | DRF (K.6)  |
| 62200          | Safety valve-fusible plug         | Device which opens the piping circuit in case of over-pressure  | FUP        |
| 62210          | Discharge pressure gauge          | Device which indicates the discharge pressure of the compressor   | GDI (K.6)  |
| 62220          | Suction pressure gauge            | Device which indicates the suction pressure of the compressor   | GSU (K.6)  |
| 62250          | Refrigerant receiver              | Tank in which condensed refrigerant may be stored   | KWT        |
| 62255          | Sight glass                       | Window for checking the refrigerant level   | SGL        |

| Numerical code | Name               | Description   | CEDEX code |
|----------------|--------------------|---|------------|
| 62260          | Vibrabsorber       | Flexible pipes on the suction and discharge lines of the refrigeration unit which absorb vibrations | VIB (K.6)  |
| 62265          | Accumulator        | Storage chamber for liquid refrigerant in the suction line  | ACC        |
| 62270          | Refrigerant charge | Volume of refrigerant inside the refrigeration unit   | FCH        |
| 62280          | Others             | Other piping devices not listed   | PMI (K.4)  |

#### K.6.8 Frame - Location: MFNN

|       |   |  |           |
|-------|---|--|-----------|
| 62510 | Frame assembly                                  | Structure of the refrigeration unit  | FAS (K.7) |
| 62520 | Evaporator access panel                         | Panel which can be removed to access the evaporator section from outside the container             | VAP (K.7) |
| 62525 | Heater access panel                             | Panel which can be removed to access the heater coils and drain section from outside the container | HAP       |
| 62530 | Condenser grille                                | Device which protects the condenser fan outside the container                                      | GLK (K.7) |
| 62540 | Compressor protection enclosure/provision cable | Device which protects the compressor from shocks and allows to stow the power supply cable         | QPG (K.7) |
| 62550 | Evaporator grille                               | Device which protects the evaporator fan inside the container                                      | GLI (K.7) |
| 62560 | Inner panel                                     | Front inside panel of the container  | INP (K.7) |
| 62570 | Compressor base                                 | Plate to which the compressor is fixed   | QBS (K.7) |
| 62580 | Hardware  | Screws, nuts, and bolts  | HWR (K.7) |
| 62590 | Frame gaskets                                   | Seals between the refrigeration unit frame and the container frame                                 | GAS (K.7) |
| 62600 | Thermometer insertion port                      | Frame opening designed to insert a thermometer (either in the return air or the supply air)        | TTU (K.7) |
| 62610 | Drain pan                                       | Device fixed underneath the evaporator coil to collect defrost water                               | DPA (K.7) |
| 62620 | Drain tube                                      | Tube which drains water out of the unit  | DRN (K.7) |
| 62630 | Air exchange vent                               | Device which allows air renewal to reduce the concentration of gas given off by respiration cargo  | ARE       |
| 62640 | Electrical box                                  | Box which contains all the electrical components for power control and recorder                    | BEA (K.7) |
| 62650 | Electrical door                                 | Opening panel of the electrical box  | BED (K.7) |
| 62660 | Electrical door gasket                          | Seal designed to close the electrical box door tightly to keep water out                           | BEG (K.7) |
| 62664 | Electrical door hinge                           | Hinge supporting electrical control box  | BEH       |

| Numerical code | Name                          | Description   | CEDEX code |
|----------------|-------------------------------|---|------------|
| 62665          | Electrical diagram            | Schematic or functional diagram of wiring   | EDX        |
| 62666          | Electrical diagram holder     | Retainer for electrical diagram   | EDH        |
| 62670          | Controller box                | Box which contains all the electric and electronic equipment components of the controller             | BCA (K.7)  |
| 62680          | Controller box door           | Opening panel of the controller box   | BCD (K.7)  |
| 62690          | Controller box door gasket    | Seal designed to close the controller box door tightly  | BCG (K.7)  |
| 62695          | Controller box door hinge     | Hinge supporting controller box door  | BCH        |
| 62696          | Controller box door window    | Glass mounted in controller box door  | BCW        |
| 62700          | Recorder box                  | Box which contains the temperature recorder   | BRA (K.7)  |
| 62710          | Recorder box door             | Opening panel of the recorder box   | BRD (K.7)  |
| 62720          | Recorder box door gasket      | Seal designed to close the recorder box tightly   | BRG (K.7)  |
| 62725          | Recorder box door window      | Glass mounted in recorder box door  | BRL        |
| 62726          | Recorder box door hinge       | Hinge supporting recorder box door  | BRH        |
| 62730          | Recorder key/chain            | Key, designed to wind up the recorder clock, and the chain fastening this key to the box              | RKY (K.7)  |
| 62735          | Recorder chart nut/chain      | Fastener and retainer for recorder chart  | RCC        |
| 62736          | Recorder key holder           | Retainer for recorder winding key   | RKC        |
| 62737          | Expansion valve door hinge    | Hinge support for expansion valve cover   | TXH        |
| 62738          | Electrical component shield   | Cover to guard against accidental contact with high-voltage circuits                                  | BES        |
| 62740          | CO <sub>2</sub> sampling plug | Device which allows sampling of air from the container to measure the concentration of carbon dioxide | COO (K.7)  |
| 62745          | Document holder               | Pocket or tube to carry documents   | MDH        |
| 62750          | Markings                      | Printed information or warnings on the refrigeration unit   | MRK (K.7)  |
| 62760          | Clamping device, upper        | Device for attaching a clip-on refrigeration unit to the upper receptacle of a container              | HCU        |

| Numerical code                              | Name                             | Description  | CEDEX code |
|---|----------------------------------|--|------------|
| 62770                                       | Clamping device, lower           | Device for attaching a clip-on refrigeration unit to the lower receptacle of a container | HCL        |
| 62780                                       | Others                           | Other frame devices not listed   | FMI (K.4)  |
| <b>K.6.9 Miscellaneous - Location: MZNN</b> |                                  |  |            |
| 62800                                       | Air filter, primary              | Primary device for screening air flow  | AFP        |
| 62810                                       | Air filter, secondary            | Secondary device for screening air flow  | AFS        |
| 62820                                       | Controlled-atmosphere compressor | Compressor in controlled-atmosphere system   | CAR        |
| 62830                                       | Controlled-atmosphere drier      | Drier in controlled-atmosphere system  | CAD        |
| 62840                                       | Controlled-atmosphere heater     | Heater in controlled-atmosphere system   | CAH        |
| 62850                                       | Oxygen/nitrogen separator        | Membrane for separating flows of oxygen and nitrogen gases                               | ONS        |
| 62860                                       | Oxygen/nitrogen valve            | Flow regulator for oxygen and nitrogen gas lines   | ONV        |
| 62870                                       | Carbon dioxide supply            | Tank containing carbon dioxide gas   | CDY        |
| 62880                                       | Controlled-atmosphere controller | Electronic device for regulation of controlled-atmosphere system                         | CAC        |
| 62890                                       | Sensor, oxygen                   | Device to detect oxygen in controlled-atmosphere system                                  | OXS        |
| 62900                                       | Sensor, carbon dioxide           | Device to detect carbon dioxide in controlled-atmosphere system                          | CDS        |
| 62910                                       | Sensor, water                    | Device to detect water in controlled-atmosphere system                                   | SRW        |
| 62920                                       | Sensor, temperature              | Device to detect temperature changes in controlled-atmosphere system                     | SRT        |
| 62930                                       | Humidity control                 | Apparatus for controlling humidifier   | HUC        |
| 62940                                       | Humidifier                       | Apparatus for keeping the humidity in a container within limits                          | HUM        |
| 62950                                       | Water tank                       | Storage receptacle for water   | WTK        |
| 62960                                       | Ethylene scrubber                | Filter to remove ethylene gas  | ETS        |
| 62970                                       | Carbon dioxide scrubber          | Filter to remove carbon dioxide gas  | CDR        |

| Numerical code | Name                              | Description   | CEDEX code |
|----------------|-----------------------------------|---|------------|
| 62980          | Controlled-atmosphere door switch | Switch to shut down operation of refrigeration and controlled-atmosphere unit when container door is opened | CAW        |

## K.7 Components of tank containers

### K.7.1 Frame - Location: AFNN

|       |                          |   |     |
|-------|--------------------------|---|-----|
| 70010 | Frame fasteners          | Bolts and nuts used to secure framework and/or walkways                 | YFF |
| 70020 | Frame strap              | Band to secure pressure vessel to frame                                 | YFS |
| 70030 | Frame strap mounting pad | Welded bracket to connect straps to frame                               | YMP |
| 70040 | Diagonal brace           | Diagonal structural member  | YDR |
| 70050 | Saddle                   | Structure to support pressure vessel within frame                       | YSA |
| 70060 | Skirt                    | Structure to connect pressure vessel to end frames                      | YSK |
| 70070 | Vertical post            | Vertical structural member  | YVP |
| 70080 | Frame gussets/stiffeners | Miscellaneous structural brackets                                       | YTG |
| 70090 | Load transfer area       | Cross-member or pad to allow proper interface with transportation means | YLT |
| 70100 | Horizontal rail          | Horizontal structural member  | YHR |

### K.7.2 Pressure vessel - Location: APNN

|       |                 |   |     |
|-------|-----------------|---|-----|
| 70200 | Welded flange   | Steel ring welded to pressure vessel to accept bolted accessories           | YFL |
| 70210 | Sump            | Depression located at the bottom of pressure vessel to facilitate discharge | YSU |
| 70220 | Shell           | Cylindrical body of a pressure vessel                                       | YSH |
| 70230 | Vapour flange   | Orifice giving access to vapour phase of tank contents                      | YUF |
| 70240 | Stiffening ring | Reinforcing circumferential ring externally welded to pressure vessel       | YST |
| 70250 | Head            | Dished end of pressure vessel   | YHE |
| 70260 | Baffle          | Vertical plate to reduce surge  | YBA |
| 70270 | Baffle holder   | Fitting for removable baffle  | YBH |

### K.7.3 Loading/unloading components - Location: ALNN

|       |                 |   |     |
|-------|-----------------|---|-----|
| 70300 | Level indicator | Indicator showing whether tank is level with ground | YLN |
| 70310 | Coupling        | Connection of tank to external piping               | YCO |

| Numerical code                           | Name                        | Description  | CEDEX code |
|--|-----------------------------|--|------------|
| 70320                                    | Diptube                     | Tube to allow pressure discharge through top outlet                  | YDI        |
| 70330                                    | Top external valve assembly | External loading and unloading valve at tank top                     | YEU        |
| 70340                                    | Foot valve gasket           | Gasket between tank and foot valve                                   | YGA        |
| 70350                                    | Foot valve assembly         | First internal bottom closure  | YFV        |
| 70360                                    | External valve assembly     | Second bottom closure  | YEV        |
| 70370                                    | Air valve                   | Valve used to vent or pressurize                                     | YAV        |
| 70380                                    | Blind flange                | Bolted closing plate   | YBF        |
| 70390                                    | Sample valve assembly       | Valve used to sample product from the tank                           | YTV        |
| 70400                                    | Spacer                      | Device used to position a clamped valve between flanges              | YPV        |
| <b>K.7.4 Manhole - Location: AMNN</b>    |                             |  |            |
| 70500                                    | Manhole cover (manlid)      | Steel lid that covers the manhole                                    | YMC        |
| 70510                                    | Manhole flange              | Steel collar upon which the manhole cover closes                     | YMF        |
| 70520                                    | Manlid hold-down fasteners  | Securing device for closing manlid                                   | YHD        |
| 70530                                    | Manlid hinges               | Fitting by which manhole cover rotates                               | YMO        |
| 70540                                    | Manhole assembly            | Manhole with complete set of components, including manlid and flange | YMH        |
| 70550                                    | Manlid gasket               | Manlid sealing gasket  | YMG        |
| 70560                                    | Manhole dipstick            | Calibrated bar to measure filling level                              | YMD        |
| 70570                                    | Manhole dipstick holder     | Retaining fitting for manhole dipstick                               | YMR        |
| <b>K.7.5 Insulation - Location: AINN</b> |                             |  |            |
| 70600                                    | Insulation material         | Material used to reduce heat transfer                                | YIN        |
| 70610                                    | Insulation cladding         | Protection for insulation  | YIC        |
| 70620                                    | Sun shield                  | Thermal protection mounted on top of tank                            | YSN        |
| 70630                                    | Sun shield support          | Bracket welded on tank used to fix sun shield                        | YTS        |
| 70640                                    | Cladding strap              | Outside belt with tensioning device                                  | YCS        |

| Numerical code                               | Name                             | Description  | CEDEX code |
|--|----------------------------------|--|------------|
| 70650  | Cladding support                 | Bracket welded on tank, used to fix cladding and secure insulation | YCD        |
| <b>K.7.6 Heating - Location: AHNN</b>        |                                  |  |            |
| 70700  | Steam inlet/outlet               | Steam supply connection  | YSI        |
| 70710  | Steam safety valve               | Steam over-pressure relief valve                                   | YSV        |
| 70720  | Steam heating tubes              | Steam circulation tubes  | YSE        |
| 70730  | Steam line cap                   | Steam line closure system  | YSL        |
| 70740  | Electrical heating element       | Device which produces heat by electrical resistance                | YEH        |
| 70750  | Steam trap                       | Device for removal of condensate from steam circulation system     | YDV        |
| 70760  | Thermometer receptacle           | Fitting to allow insertion of temperature probe                    | YTW        |
| 70770  | Thermometer                      | Temperature-measuring device                                       | YTM        |
| <b>K.7.7 Safety devices - Location: ASNN</b> |                                  |  |            |
| 70800  | Safety relief valve manometer    | Pressure gauge used to check integrity of rupture disk             | YRM        |
| 70810  | Safety relief valve              | Device used to avoid over-pressure of vessel                       | YTR        |
| 70820  | Safety relief flange             | Steel collar for connection to pressure vessel                     | YSR        |
| 70830  | Rupture disk                     | Frangible disk used in conjunction with relief valve               | YRU        |
| 70840  | Safety relief valve flame trap   | Metal gauze to prevent flashback                                   | YFT        |
| 70850  | Earth (ground) connection        | Electrical protection to earth (ground)                            | YEC        |
| 70860  | Gas tank internal safety valve   | Valve which closes if coupling is broken                           | YIS        |
| 70870  | Gas tank excess flow valve       | Restriction to limit the flow of gas                               | YEX        |
| 70880  | Rupture disk holder              | Flange which holds rupture disk                                    | YRD        |
| 70890  | Emergency closure remote control | Remote trip device to allow closing of internal valve              | YEM        |
| 70900  | Overheating fusible link         | Temperature-sensitive emergency closure system                     | YOH        |

| Numerical code                           | Name                              | Description  | CEDEX code |
|--|-----------------------------------|--|------------|
| <b>K.7.8 Markings - Location: ADNN</b>   |                                   |  |            |
| 71000                                    | Operator marking                  | Marking required by operator   | YOM        |
| 71010                                    | FRA marking                       | Marking required by US Federal Railroad Administration                                 | YFR        |
| 71020                                    | Tank data plate                   | Metal plate containing data applicable to tank and contents                            | YTA        |
| 71030                                    | CTC marking                       | Marking required by Canadian Transport Commission                                      | YCT        |
| 71040                                    | DOT marking                       | Marking required by US Department of Transportation                                    | YDO        |
| 71050                                    | FLA plate                         | Metal plate required by Japanese fire marshal  | YFU        |
| 71060                                    | Electrical wiring marking         | Marking showing routing or schematic of electrical wiring                              | YEW        |
| 71070                                    | Earth (ground) connection marking | Marking showing location of earth (ground) connection                                  | YEA        |
| 71080                                    | Product marking                   | Marking indicating contents of tank  | YPM        |
| 71090                                    | RTMD marking                      | Marking required by France for transport of hazardous cargo                            | YRT        |
| 71100                                    | AAR marking                       | Marking required by Association of American Railroads                                  | YAA        |
| 71110                                    | BAM marking                       | Marking required by Germany for transport of hazardous cargo                           | YBM        |
| 71120                                    | UIC marking                       | Marking required by Union International de Chemin de Fer (International Railway Union) | YUI        |
| 71130                                    | RID/ADR marking                   | Marking required by European Union   | YRI        |
| <b>K.7.9 Access - Location: AANN</b>     |                                   |  |            |
| 71200                                    | Walkway                           | Grid floor on top of tank used for walking   | YWA        |
| 71210                                    | Walkway fitting                   | Hardware used to secure the walkway  | YWF        |
| 71220                                    | Hand rail assembly                | Assembly including bar used by personnel for balance and support                       | YHA        |
| 71230                                    | Ladder                            | Device used by personnel for climbing and descending                                   | YLA        |
| 71240                                    | Ladder grip handle                | Grip for handling ladder   | YLG        |
| 71250                                    | Manometer step guard              | Impact protection for manometer  | YMS        |
| <b>K.7.10 Spill box - Location: ABNN</b> |                                   |  |            |
| 71300                                    | Spill box                         | Casing surrounding top fittings to catch overflow                                      | YSP        |

| Numerical code | Name                    | Description                           | CEDEX code |
|----------------|-------------------------|---------------------------------------|------------|
| 71310          | Spill box cover         | Lid of spill box                      | YBC        |
| 71320          | Spill box lid hinge     | Fitting by which lid rotates          | YSB        |
| 71330          | Spill box lock assembly | Fitting to allow sealing of spill box | YLO        |
| 71340          | Tank draining tube      | Drainpipe connected to spill box      | YDT        |

#### K.7.11 Miscellaneous - Location: AZNN

|       |                      |  |     |
|-------|----------------------|--|-----|
| 71400 | Customs seal point   | Hole at various closures to allow customs or other sealing | YCU |
| 71410 | Washing nozzle       | Spray device fitted on pressure vessel for washing         | YWN |
| 71420 | Calibration chart    | Conversion table for dipstick graduations                  | YCC |
| 71430 | Document holder      | Pocket or tube to carry documents                          | YDH |
| 71440 | Service manometer    | Manometer to indicate internal pressure of tank            | YMA |
| 71450 | Product plate holder | Holder for placard displaying product identification       | YPP |
| 71460 | Tank lining          | Chemically resistant internal coating of pressure vessel   | YLI |

#### K.8 Components of generator sets and engines

##### K.8.1 Engine - Location: GDNN

|       |                                    |  |     |
|-------|------------------------------------|--|-----|
| 80000 | Engine assembly                    | Entire engine                                      | JNA |
| 80010 | Bearing and rod assembly           | Connecting rod and associated bearing              | JNR |
| 80020 | Crankshaft                         | Rotating member that transmits torque to generator | JNV |
| 80030 | Crankshaft bearings                | Bearings forming part of crankshaft                | JNJ |
| 80040 | Gasket, cylinder block front cover | Seal on cylinder block front cover                 | JGF |
| 80050 | Gasket, cylinder head cover        | Seal on cylinder head cover                        | JGC |
| 80060 | Gasket, cylinder head              | Seal on cylinder head                              | JGH |
| 80070 | Engine cylinder head               | Top portion of engine cylinders                    | JNH |
| 80080 | Engine exhaust manifold            | Exhaust piping attached directly to cylinder head  | JNQ |

| Numerical code | Name                       | Description  | CEDEX code |
|----------------|----------------------------|--|------------|
| 80090          | Engine belt                | Drive belt for any engine pulley                                     | JNE        |
| 80100          | Engine bearing             | Miscellaneous bearing within engine, not otherwise defined           | JNB        |
| 80110          | Engine fan                 | Cooling fan for engine   | JNF        |
| 80120          | Engine bowl strainer       | Fuel strainer in engine bowl   | JNS        |
| 80130          | Engine assembly            | Complete engine  | JNA        |
| 80140          | Engine air cleaner         | Filter for air entering engine combustion chamber                    | JND        |
| 80150          | Engine cylinder head cover | Cover enclosing cylinder head components                             | JNC        |
| 80160          | Engine exhaust elbow       | Bent piping within exhaust line                                      | JNX        |
| 80170          | Gasket, exhaust manifold   | Seal on exhaust manifold   | JGE        |
| 80180          | Idler pulley               | Pulley not driving another component, used for tensioning drive belt | JNY        |
| 80190          | Idler                      | Mounting for idler pulley  | JNI        |
| 80200          | Gasket, intake manifold    | Seal on intake manifold  | JGI        |
| 80210          | Muffler/ silencer          | Noise-abatement device fitted in exhaust line                        | JNM        |
| 80220          | Piping                     | Miscellaneous engine piping not otherwise defined                    | JDP        |
| 80230          | Piston assembly            | Piston and connecting rod, including pin                             | JNP        |
| 80240          | Radiator hose              | Hose used to transport coolant to/from radiator                      | JJH        |
| 80250          | Radiator assembly          | Complete radiator and associated fittings                            | JJR        |
| 80260          | Radiator shock absorber    | Cushioning device for radiator                                       | JJS        |
| 80270          | Radiator cap               | Cover for coolant intake port on radiator                            | JJF        |
| 80280          | Rain cap                   | Cover on exhaust pipe for preventing entry of water from atmosphere  | JNZ        |
| 80290          | Thermostat                 | Coolant flow regulator based on coolant temperature                  | JKD        |

#### K.8.2 Electrical system - Location: GENN

|       |                            |                                 |     |
|-------|----------------------------|---------------------------------|-----|
| 80400 | Alternator diode, negative | Negative terminal of diode      | JMN |
| 80410 | Alternator exciter field   | Exciter field within alternator | JME |

| Numerical code | Name                       | Description  | CEDEX code |
|----------------|----------------------------|--|------------|
| 80420          | Alternator diode, positive | Positive terminal of diode   | JMP        |
| 80430          | Ammeter                    | Current measurement device   | JEN        |
| 80440          | Battery charger plug       | Male connector on charger  | JEF        |
| 80450          | Battery charger receptacle | Female connector on charger  | JEB        |
| 80460          | Battery                    | Self-contained power storage device                                    | JEO        |
| 80470          | Battery clamps             | Securing fasteners for battery   | JEJ        |
| 80480          | Battery hold-down          | Restraining bar holding battery in place                               | JED        |
| 80490          | Circuit breaker, 12 V      | Electrical safety device for 12 V circuit                              | JBD        |
| 80500          | Circuit breaker, 230 V     | Electrical safety device for 190/230 V circuit                         | JBC        |
| 80510          | Circuit breaker, 460 V     | Electrical safety device for 380/460 V circuit                         | JBA        |
| 80520          | Circuit board              | Board incorporating printed circuits and related electronic components | JBB        |
| 80530          | Control box, main          | Enclosure for main control circuits                                    | JAB        |
| 80540          | Exciter voltmeter          | Electrical potential measurement device for exciter                    | JXM        |
| 80550          | Exciter cover gasket       | Seal for exciter cover   | JEE        |
| 80560          | Exciter assembly           | Entire set of exciter components                                       | JXA        |
| 80570          | Exciter box                | Enclosure for exciter  | JXB        |
| 80580          | Exciter rectifier, 3-phase | Converter of 3-phase a.c. to d.c.                                      | JXP        |
| 80590          | Exciter socket             | Receptacle into which exciter is plugged                               | JXS        |
| 80600          | Exciter cover              | Cover for exciter assembly   | JXC        |
| 80610          | Exciter resistor           | Resistive component within exciter                                     | JXR        |
| 80620          | Exciter rectifier diode    | Diode component of exciter rectifier                                   | JXE        |
| 80630          | Glow plugs                 | Electrical component to bring fuel to combustion temperature           | JEG        |
| 80640          | Hourmeter                  | Device for measuring operating time of engine                          | JEH        |
| 80650          | Receptacle, 230 V          | Female connector for 190/230 V circuit                                 | JET        |
| 80660          | Receptacle, 460 V          | Female connector for 380/460 V circuit                                 | JEU        |
| 80670          | Regulator                  | Voltage control device   | JER        |

| Numerical code | Name                            | Description   | CEDEX code |
|----------------|---------------------------------|---|------------|
| 80680          | Run control relay               | Electrical switching device to control engine operation       | JRR        |
| 80690          | Starter motor                   | Motor used to operate engine until ignition occurs            | JES        |
| 80700          | Starter motor solenoid          | Induction coil within starter motor                           | JEM        |
| 80710          | Switch, water high-temperature  | Safety shutdown switch when water temperature is too high     | JST        |
| 80720          | Switch, high-temperature cutout | Safety shutdown switch when operating temperature is too high | JSH        |
| 80730          | Switch, low oil pressure        | Safety shutdown switch when oil pressure is insufficient      | JSL        |
| 80740          | Switch, on/off                  | Switch to start and stop engine operation                     | JSO        |
| 80750          | Switch, on/off starter motor    | Switch to engage starter motor                                | JSS        |
| 80760          | Switch, preheat start           | Switch to energize glow plugs                                 | JSP        |
| 80770          | Wiring, general                 | Wiring or harnesses not otherwise defined                     | JEY        |

#### K.8.3 Frame - Location: GFNN

|       |                 |  |     |
|-------|-----------------|--|-----|
| 80800 | Cover           | Weather-protective enclosure                         | JAC |
| 80810 | Door            | Opening access cover                                 | JAD |
| 80820 | Forklift pocket | Receptacle for forklift truck blade, used in lifting | JAF |
| 80830 | Frame assembly  | Entire frame structure of generator set              | JAA |
| 80840 | Mounting pin    | Male frame securement fitting                        | JAL |
| 80850 | Mounting clamp  | Frame securement fitting that secures by pressure    | JAU |
| 80860 | Panel           | Flat metal enclosure                                 | JAP |

#### K.8.4 Alternator - Location: GLNN

|       |                             |  |     |
|-------|-----------------------------|--|-----|
| 80900 | Alternator assembly         | Alternator and related components        | JMA |
| 80910 | Alternator bearing          | Lubrication fitting for alternator rotor | JMB |
| 80920 | Alternator disc rotor drive | Driving element of alternator rotor      | JMD |
| 80930 | Alternator rotor            | Movable electrical induction coil        | JMR |
| 80940 | Alternator stator           | Fixed electrical induction coil          | JMS |

| Numerical code                             | Name                   | Description  | CEDEX code |
|--|------------------------|--|------------|
| 80950                                      | Alternator             | Generator of alternating current                               | JEL        |
| <b>K.8.5 Oil system - Location: GONN</b>   |                        |  |            |
| 81000                                      | Oil                    | Lubricating fluid  | JOO        |
| 81010                                      | Oil pan gasket         | Seal on oil pan  | JGO        |
| 81020                                      | Oil temperature gauge  | Measurement device for oil temperature                         | JOT        |
| 81030                                      | Oil pan                | Sump in which oil collects                                     | JNU        |
| 81040                                      | Oil level gauge        | Indicator of depth of oil in pan                               | JOG        |
| 81050                                      | Oil filter             | Device for cleansing oil                                       | JNL        |
| 81060                                      | Oil pressure gauge     | Device for oil pressure measurement                            | JNG        |
| 81070                                      | Oil hose               | Flexible conduit for oil                                       | JDO        |
| <b>K.8.6 Fuel system - Location: GUNN</b>  |                        |  |            |
| 81100                                      | Antifreeze (fuel)      | Fluid used to prevent freezing of fuel                         | JOF        |
| 81110                                      | Diesel fuel            | (Self-explanatory)   | JOD        |
| 81120                                      | Engine fuel strainer   | Filter to remove impurities within engine                      | JFR        |
| 81130                                      | Fuel gauge             | Device for measuring amount of fuel in tank                    | JFG        |
| 81140                                      | Fuel heater            | Element to raise fuel to a temperature at which flow can occur | JFH        |
| 81150                                      | Fuel hose              | Flexible conduit for fuel flow                                 | JDD        |
| 81160                                      | Fuel tank              | Receptacle for fuel  | JFT        |
| 81170                                      | Fuel hand pump         | Manually operated device for forcing fuel flow                 | JFP        |
| 81180                                      | Fuel filter            | Filter to remove impurities in fuel line                       | JFF        |
| 81190                                      | Fuel filter, secondary | Filter downstream of fuel filter                               | JFS        |
| 81200                                      | Injection pump         | Device to transport fuel to fuel injectors                     | JFI        |
| 81210                                      | Injection nozzle       | Orifice through which fuel is introduced into cylinders        | JFO        |
| <b>K.8.7 Water system - Location: GWNN</b> |                        |  |            |
| 81300                                      | Antifreeze (coolant)   | Fluid used to prevent freezing of coolant                      | JWF        |

| Numerical code | Name                     | Description                                | CEDEX code |
|----------------|--------------------------|--|------------|
| 81310          | Water hose               | Flexible conduit for flow of coolant       | JDB        |
| 81320          | Water pump, alternate    | Pump used when main water pump is not used | JWA        |
| 81330          | Water pump "O"-ring      | Rubber sealant in water pump               | JGW        |
| 81340          | Water temperature sensor | Switch for sensing water temperature       | JEK        |
| 81350          | Water                    | Coolant fluid                              | JWW        |
| 81360          | Water separator          | Filter for removing water from fuel line   | JWS        |
| 81370          | Water pump               | Device for regulating flow of coolant      | JWP        |
| 81380          | Water temperature gauge  | Device for measuring coolant temperature   | JWK        |

#### K.8.8 Entire generator set unit - Location: GXNN

|       |                         |  |     |
|-------|-------------------------|--|-----|
| 81400 | Generator set, complete | Entire generator set, including all components | JXX |
|-------|-------------------------|--|-----|

#### K.8.9 Miscellaneous generator set components - Location: GZNN

|       |                  |  |     |
|-------|------------------|--|-----|
| 81500 | Clamps           | Securing device operated by pressure                 | JIC |
| 81510 | Fasteners        | Hardware securement fittings                         | JIF |
| 81520 | Hardware         | Miscellaneous fasteners and routing fittings         | JAH |
| 81530 | Markings         | Decals and plates conveying information              | JAM |
| 81540 | Other components | Components of generator sets not specified elsewhere | JAO |

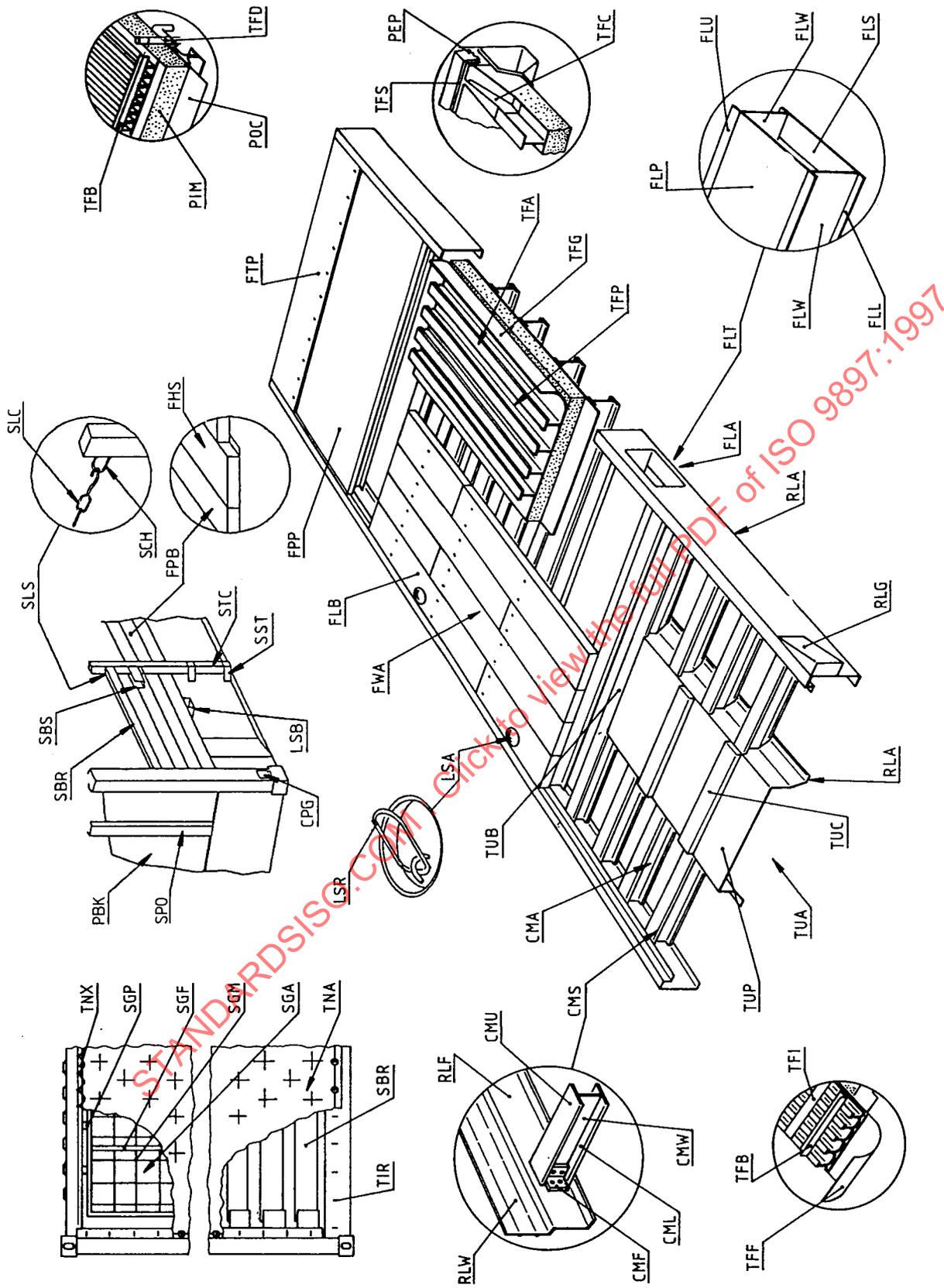


Figure K.1





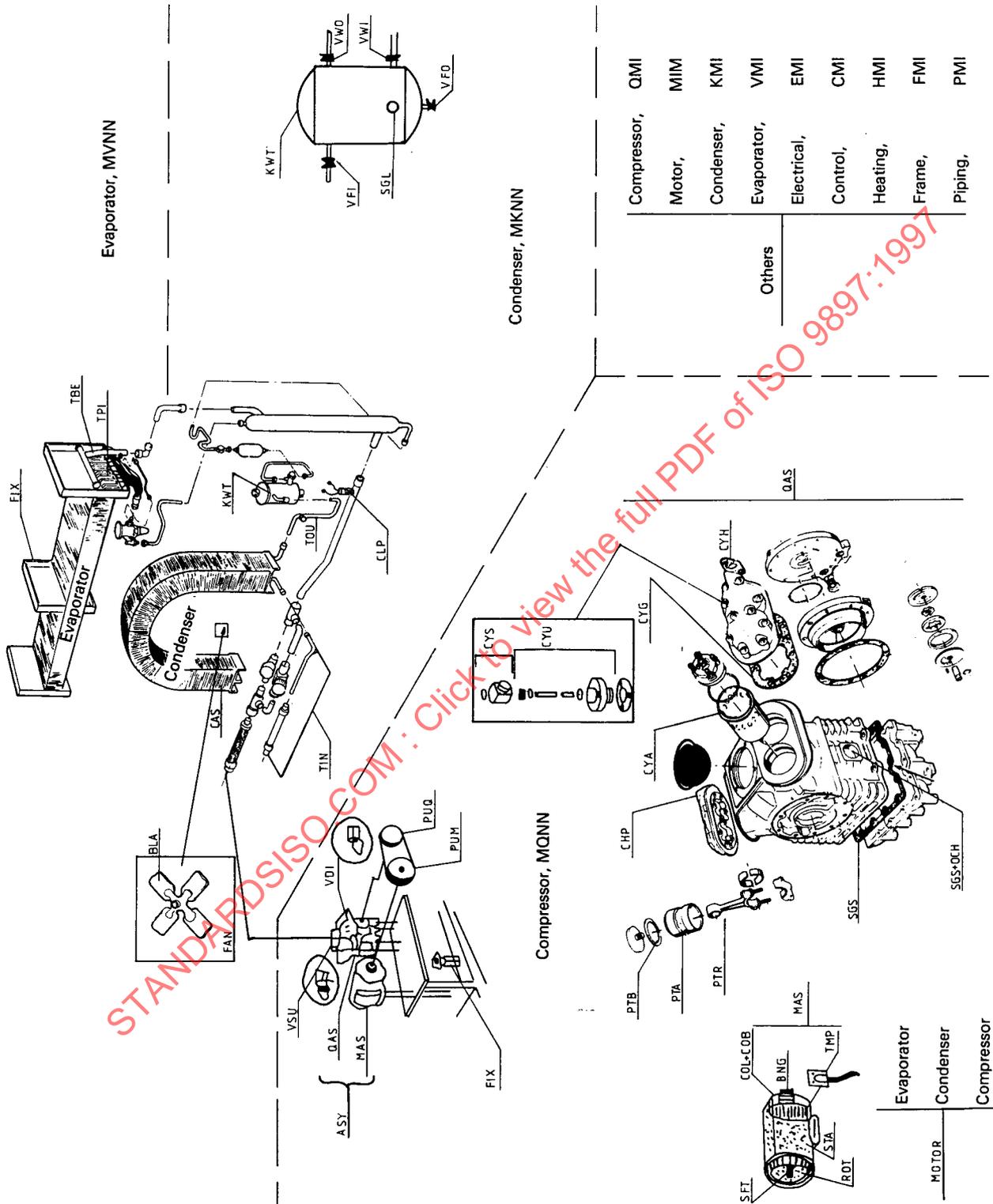


Figure K.4

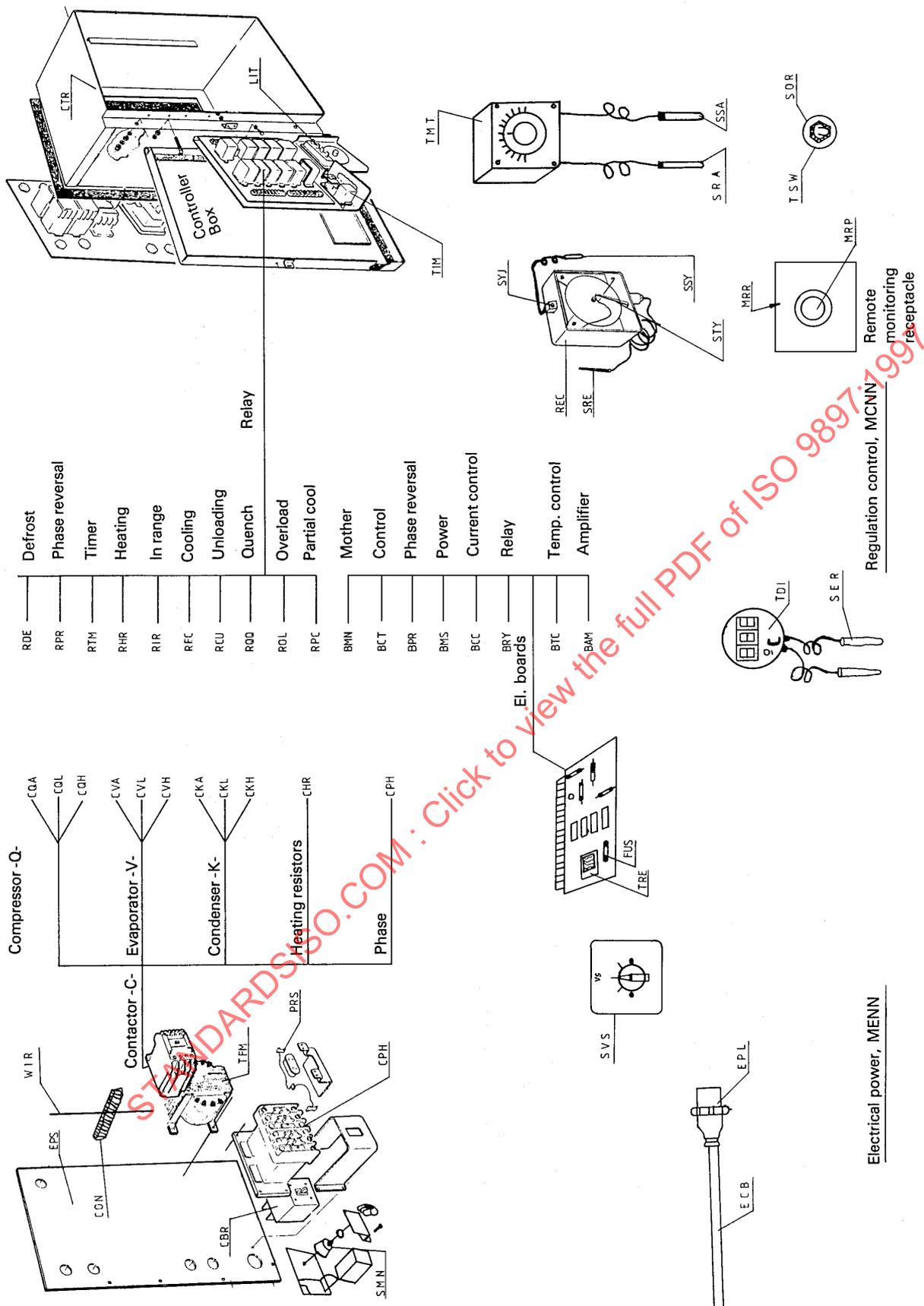


Figure K.5