

TC 104

# INTERNATIONAL STANDARD

**ISO**  
**9897-1**

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## **Freight containers — Container equipment data exchange (CEDEX) —**

### **Part 1: General communication codes**

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

*Partie 1: Codes des communications générales*



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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 9897-1 was prepared by Technical Committee ISO/TC 104, *Freight containers*.

ISO 9897 will consist of the following parts, under the general title *Freight containers* — *Container equipment data exchange (CEDEX)*:

- *Part 1: General communication codes*
- *Part 2: Manual for telex transmission*
- *Part 3: Message types for electronic data interchange*

Annexes A to L (except J) form an integral part of this part of ISO 9897. Annexes J and M are for information only.

## Introduction

As containers move throughout the world in domestic and foreign service, there is need to dispatch information from one office or facility to another, concerning damage repair or the replacement of worn parts. Such communications may announce, for example, the expected arrival date of a container at a certain repair depot, or describe the nature of some repair, or may be a price quotation for work about to be done. CEDEX was prepared to fill that need for a fast, efficient and cost-effective communications system.

The communication may be between any parties who wish to adopt CEDEX. However, there is an unwritten obligation on the part of all users to maintain their system up-to-date with the latest issue of the Code. Procedures for maintenance and revision are set down in the various parts of ISO 9897.

Over the years since the introduction of containerization, containers have become quite similar in design and manufacturing techniques, irrespective of manufacturer or country of origin. Thus it is now possible to identify and encode the structural elements and operating devices of all types of containers. This uniformity of construction is a prerequisite to being able to identify component parts of a container in an abbreviated (i.e. encoded) way and in such a manner that the communication becomes clear and unambiguous.

For the first time in the history of the ISO container standards project, an extensive nomenclature has been established which will aid not only in the transmission of encoded information in electronic data processing or by telex, as set forth in this part of ISO 9897, but will also be valuable for all kinds of communication (spoken or written). Its widespread use is anticipated in such fields as repair manuals, sales literature, engineering specifications, legal work, academia, training guides, customs declarations, etc. Pictorial representations of most component parts are given.

For those companies whose communications are few in number or where the nature of the messages is principally internal, no code may be required. But for those companies whose communications about containers might be frequent or where they commonly extend to unaffiliated firms outside of their management control, there needs to be a common protocol for transmitting and receiving information. CEDEX was established to provide that common protocol. Where an internal code is different from CEDEX, operators will have to provide a means of translating information to and from CEDEX.

The pressing need of CEDEX by the container industry prompted ISO/TC 104 to release this standard as quickly as possible. Because of this urgency, there may be unforeseen problems in implementing the system which could have been circumvented had a slower and more meticulous development process been used. The delay, however, would perhaps have seen the introduction of additional internal systems incompatible with CEDEX and hence retard industry-wide adoption. Therefore, the standard was accelerated and released so that early use, familiarity and experience might lead to feedback of ideas for improvement.

Comments and suggestions are welcome. They should be sent to the secretariat of ISO/TC 104, *Freight containers*, SC 4, *Identification and communication*.

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# Freight containers — Container equipment data exchange (CEDEX) —

## Part 1: General communication codes

### 1 Scope

This part of ISO 9897 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 part of ISO 9897. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9897 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 : 1988, *Codes for the representation of names of countries*.

ISO 6346 : 1984, *Freight containers — Coding, identification and marking*.

### 3 Principle

In this part of ISO 9897, codes are assigned to pieces of information (called "data elements") which are commonly used in such transactions. These data elements are named and defined and a five-digit numerical code is assigned to each, along with a CEDEX alphabetical code.

The data element may be a phrase about the material of construction of a container. For example, numerical code 05350 means "Material is vertically laminated softwood plank". It may describe an actual operating defect. For example, numerical code 04290 means "Motor will not function". There are many other coded data elements that describe various physical characteristics of containers and other essential pieces of information about their movement and management.

It can be seen from these examples that the text of a message can be substantially reduced in length by using the numerical code instead of plain words. It is even possible to reduce the length further by using letters instead of digits. That is what CEDEX does. It permits the five-digit numerical code to be transmitted by alpha codes of one, two or three characters, thus reducing the overall length of messages and saving time and cost.

In the first example (05350), the CEDEX code is LS and in the second one (04290) it is MF. 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 the coded form. Also, many operators will not require use of all the CEDEX codes assigned in this part of 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 their equivalent codes required to describe equipment components, their condition, repair methods, etc., are listed in table 1.

#### 4.2 Code assignments

All codes 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.

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 part of ISO 9897.

Table 1 — Data elements and code sets

| Data elements                      | Code set;<br>see annex |
|------------------------------------|------------------------|
| 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 ISO Council has, in accordance with the provisions of the Directives for the technical work of ISO, designated the Secretariat of ISO/TC 104/SC 4 as the Registration Authority for the data elements:

Registration Authority for ISO 9897  
FAKRA im DIN  
Westendstrasse 61  
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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 this group.

Each additional data element will

- carry a serial number in correct series following the reference number of the last data element code recorded;
- be allocated an alpha code, not at present in use.

## Annex A

### (normative)

### Codes — Message type (see 4.1. and 4.2)

| Numerical code | Name                 | Description                                                        | CEDEX code <sup>1)</sup> | EDIFACT code <sup>2)</sup> | Operator code |
|----------------|----------------------|--------------------------------------------------------------------|--------------------------|----------------------------|---------------|
| 01010          | On-hire interchange  | Interchange between leasing company and operator                   | ON                       | ONHIRI                     |               |
| 01020          | Off-hire interchange | Interchange between operator and leasing company                   | OF                       | OFHIRI                     |               |
| 01030          | Interchange          | Interchange between two parties with or without damage description | IN                       | INTERC                     |               |
| 01040          | Damage description   | Detailed damage description                                        | DD                       | DDESCR                     |               |
| 01050          | Work estimate        | Work cost quotation submitted for approval                         | WE                       | WESTIM                     |               |
| 01060          | Third party claim    | Third party, damage description and cost claim                     | WC                       | WCLAIM                     |               |
| 01070          | Work tender request  | Cost estimate request based on damage description                  | WR                       | WREQUE                     |               |
| 01080          | Work order           | Work order with detailed work description approved                 | WO                       | WORDER                     |               |
| 01090          | Work cost invoice    | Work cost invoice                                                  | WI                       | WINVOI                     |               |

1) To be used for telex transmission. See ISO 9897-2.

2) To be used for electronic data transmission. See ISO 9897-3.

**Annex B**  
**(normative)**

**Codes — Structural condition, repair condition, outside coating,  
inside coating; full/empty indicator**  
(see 4.1 and 4.2)

| Numerical<br>code                                                                  | Name      | Description                                                                                      | CEDEX<br>code | Operator<br>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 1 200 mm × 1 200 mm (4 ft × 4 ft) numerical square system is used to identify damage to any face of the container.
  - A component numbering system is in addition employed to identify damage to cross-members, roof bows and other similar components, which are an integral part of the 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:
  - (to be developed).

#### C.1.1 Containers

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 1 200 mm × 1 200 mm (4 ft × 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.1.1.1 First character

It shall be selected to identify the appropriate face of the container:

|                    |   |
|--------------------|---|
| right side         | R |
| left side          | L |
| roof or top        | T |
| bottom (floor)     | B |
| front end          | F |
| door end (rear)    | D |
| understructure     | U |
| whole container    | X |
| container interior | I |
| container exterior | E |

##### C.1.1.2 Second character

It shall be selected to identify the appropriate part of the container face where the damage is contained. 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 are:

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

### C.1.1.3 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)].

### C.1.1.4 Numbering system for multiple components

In addition to the location code described in C.1.1.1 to C.1.1.3, some components are more precisely identified in numerical order.

The particular components of the door and front end such as door locking bars or front (side) posts are numbered consecutively from left to right when viewed from the door end of the container.

The particular components contained in all the other faces such as roof, bows, side posts, cross-members, are numbered consecutively from the door end of the container, with the exception of the fork-lift pockets which are numbered 1 and 2 for those designed to lift the container in the loaded condition (outer set), and 3 and 4 for those designed to lift the container in the empty condition (inner set). Numbers 1 and 3 are closest to the door end.

Such particular components are then identified by:

- the relevant location code;
- their component code;
- their numerical order which is displayed in size of repair field (see clause G.2).

## EXAMPLES

NOTE — LHS means left-hand side;  
RHS means right-hand side.

| Location field | Component field | Size of repair | Description                      | Reference in figure C.1 |
|----------------|-----------------|----------------|----------------------------------|-------------------------|
| UX1N           | CMA             | 1              | Cross-member No. 1               | e)                      |
| UL12           | CMA             | 2,3,4          | LHS of cross-members Nos 2 to 4  | f)                      |
| TX12           | RBO             | 3,4,5          | Roof bows Nos 3 to 5             | g)                      |
| TR1N           | RBH             | 1              | RHS Roof bow holder of bow No. 1 | h)                      |
| UR8N           | CMA             | 1              | RHS outrigger No. 1              | i)                      |
| UX3N           | FLW             | 4              | The web or side of FLP No. 4     | j)                      |
| UL4N           | FLS             | 2              | LHS strap of FLP No. 2           | k)                      |
| RX1N           | SBO             | 2              | RHS side post No. 2              | l)                      |
| UX15           | RLA             |                | Central intermediate rail        | m)                      |
| UL80           | TUA             |                | LHS tunnel rail                  | n)                      |
| DX2N           | LBA             |                | LHS locking bar of LHS door      | o)                      |

## C.1.1.5 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.1.2 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  
TKNN Tank  
AENN Other ancillary equipment

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 the functional group code.

## EXAMPLES

| Location field | Component field | Description                                         |
|----------------|-----------------|-----------------------------------------------------|
| MKNN           | MAS             | Refrigeration machinery<br>— Condenser fan motor    |
| MVNN           | MAS             | Refrigeration machinery<br>— Evaporator fan motor   |
| MPNN           | VSS             | Refrigeration machinery<br>— Suction solenoid valve |
| TDNN           | VSF             | Tank — Safety valve                                 |

## C.1.3 Chassis (To be developed.)

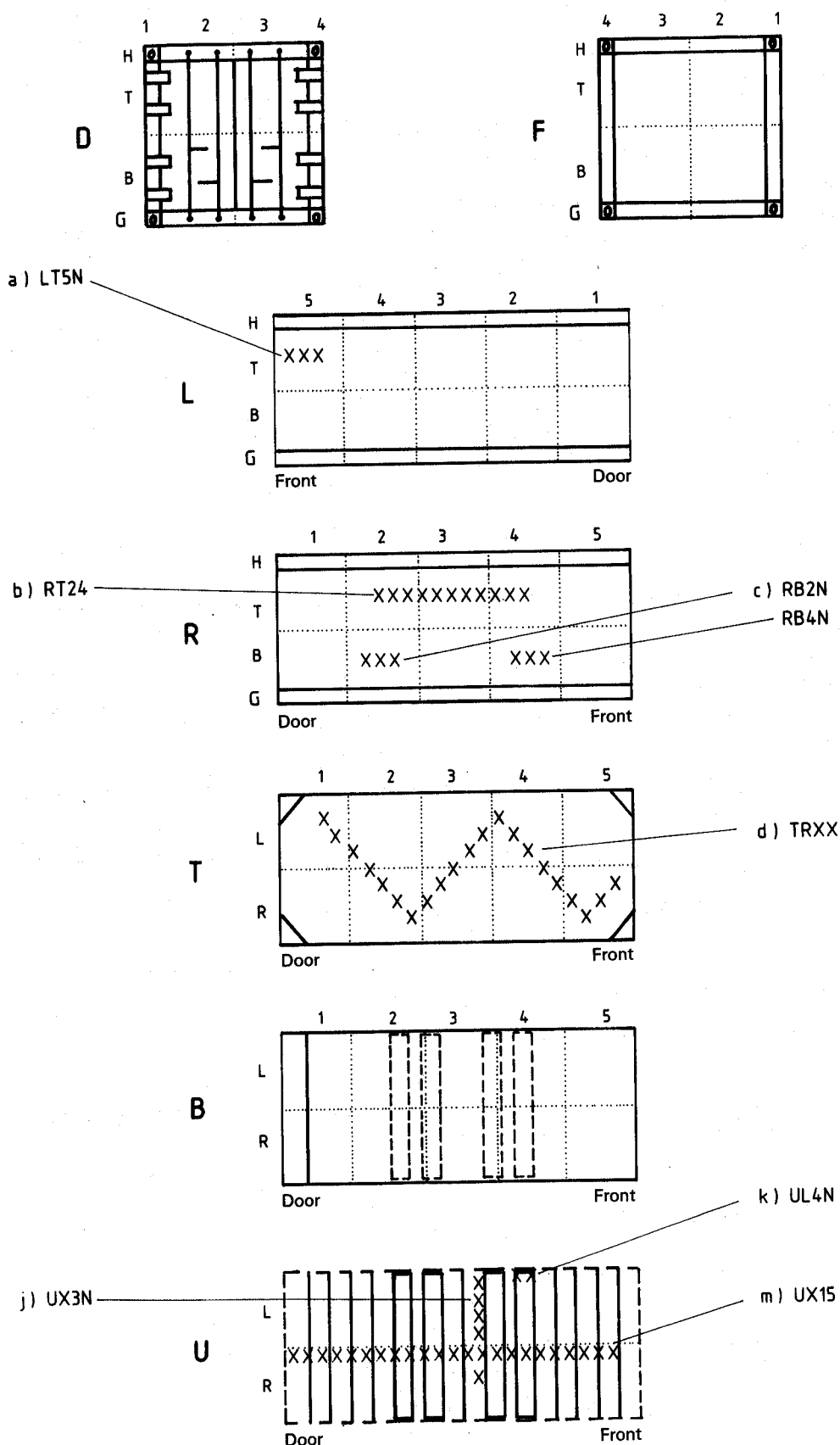


Figure C.1 — Examples of location coding for containers

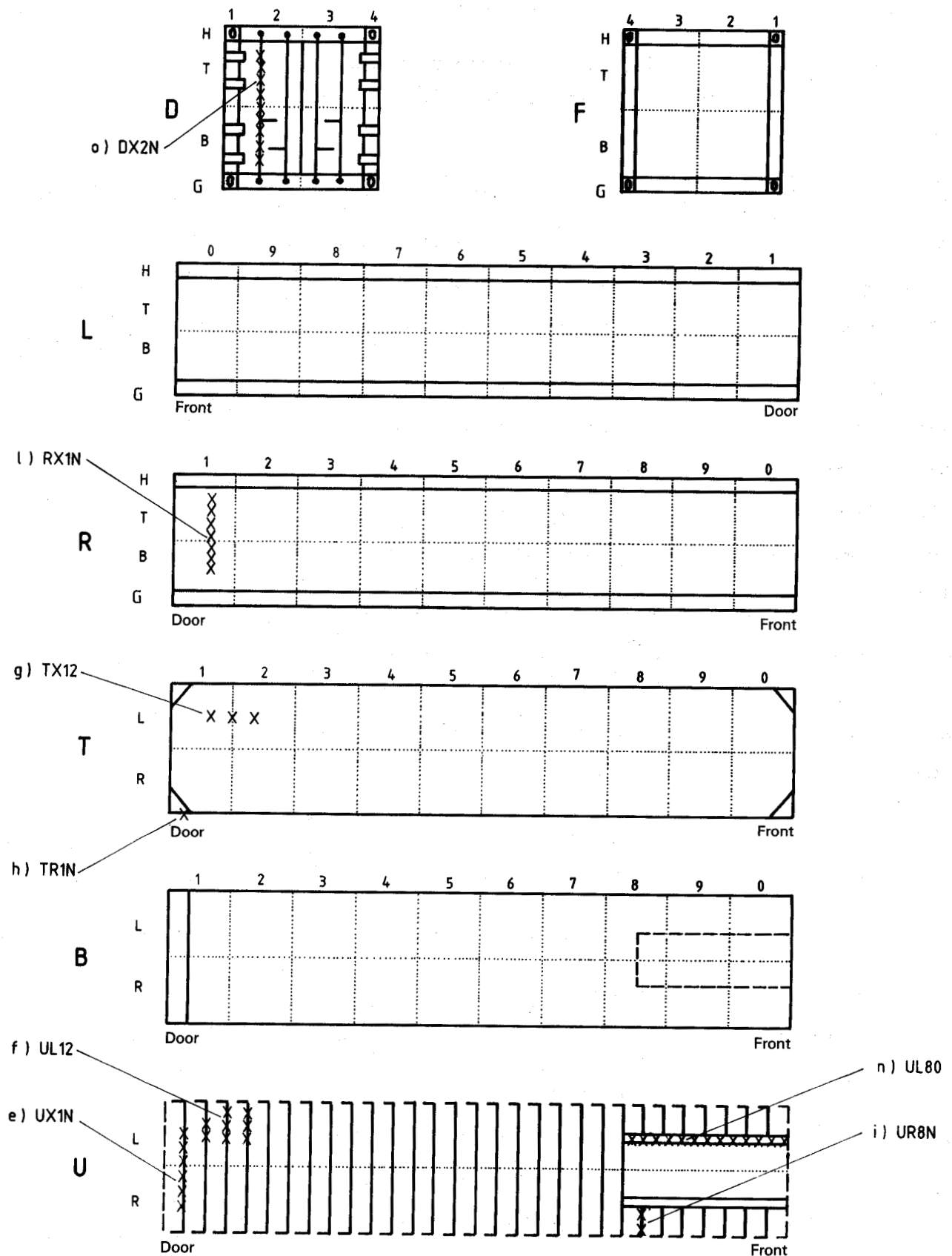


Figure C.1 — (concluded)

Annex D  
(normative)

Codes — Damage type  
(see 4.1 and 4.2)

| Numerical code | Name                          | Description                                                                                                                 | CEDEX code | Operator 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         |               |
| 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              | A 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         |               |
| 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         |               |
| 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         |               |
| 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 pannel is cracked through the glass, gelcoat and plywood                                                                | GP         |               |

| Numerical code | Name                       | Description                                                                                      | CEDEX code | Operator code |
|----------------|----------------------------|--------------------------------------------------------------------------------------------------|------------|---------------|
| 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 the 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 a 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         |               |
| 04360          | Not as required by owner   | Equipment or component no longer complies with owner's requirements                              | NO         |               |
| 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         |               |
| 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         |               |
| 04450          | Run flat                   | Tyre is damaged by being run flat                                                                | RF         |               |
| 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         |               |

| Numerical code | Name           | Description                                                                                     | CEDEX code | Operator code |
|----------------|----------------|-------------------------------------------------------------------------------------------------|------------|---------------|
| 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                                                  | 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. Tyre is 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 type

(see 4.1 and 4.2)

| Numerical<br>code | Name                               | Description                                                             | Cedex<br>code | Operator<br>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, cor-ten                     | Material is of cor-ten 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                            | Plain plywood                                                           | 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             | Plastic                            | Plastic plain                                                           | PU            |                  |
| 05410             | Plastic reinforced                 | Plastic reinforced with fibres                                          | PE            |                  |
| 05420             | Insulation material unspecified    | Insulated material in slab                                              | IS            |                  |
| 05430             | Insulation material <i>in situ</i> | Insulated material injected                                             | II            |                  |
| 05440             | Rubber unspecified                 | Material is rubber of no specific type                                  | RU            |                  |

## Annex F (normative)

### Codes — Repair type (see 4.1 and 4.2)

| Numerical code | Name                        | Description                                                                                                                                                                                                                                                                                                                                                                                | CEDEX code | Operator code |
|----------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------|
| 06010          | Abrasive clean and paint    | To clean mechanically with abrasive grit or shot and paint                                                                                                                                                                                                                                                                                                                                 | AB         |               |
| 06020          | Adjust                      | To adjust a mechanical part or system (usually brakes) to improve performance                                                                                                                                                                                                                                                                                                              | AJ         |               |
| 06030          | Air                         | To inflate or deflate tyres to correct pressure                                                                                                                                                                                                                                                                                                                                            | AR         |               |
| 06040          | Air clean                   | To clean a component or equipment with high pressure air                                                                                                                                                                                                                                                                                                                                   | AC         |               |
| 06050          | Blank out                   | To remove a ventilator and "blank out" the panel behind                                                                                                                                                                                                                                                                                                                                    | BU         |               |
| 06060          | Brand                       | To apply a name/initial or other mark to tyres to denote ownership or other information                                                                                                                                                                                                                                                                                                    | BD         |               |
| 06070          | Chemical clean              | To clean a component with chemical wash                                                                                                                                                                                                                                                                                                                                                    | CC         |               |
| 06080          | Drain                       | To drain the system                                                                                                                                                                                                                                                                                                                                                                        | DR         |               |
| 06090          | Drain and fill              | To drain the system and refill 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                        | To free a frozen, seized or stiff component by means of force, lubricants or heat                                                                                                                                                                                                                                                                                                          | FR         |               |
| 06120          | Insert                      | To 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         |               |
| 06130          | Lubricate                   | To apply lubrication                                                                                                                                                                                                                                                                                                                                                                       | LC         |               |
| 06140          | Overlapping partial section | To 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 the seams between skip welds      | OP         |               |
| 06150          | Paint                       | To apply paint                                                                                                                                                                                                                                                                                                                                                                             | PA         |               |
| 06160          | Partial refurbishment       | To remove localized corrosion and repaint the surface of the equipment fully or partially                                                                                                                                                                                                                                                                                                  | PR         |               |
| 06170          | Patch                       | To 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         |               |