INTERNATIONAL STANDARD

ISO 9897-5

First edition

Freight containers — Container equipment data exchange (CEDEX) —

Part 5:
General communication codes for container chassis

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

Partie 5: Codes de communication générale pour les châssis de conteneurs

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 104, *Freight containers*, Subcommittee SC 4, *Identification and communication*.

This first edition of ISO 9897-6, together with ISO 9897-1, ISO 9897-2 and ISO 9897-5, cancels and replaces ISO 9897:1997, which has been technically revised with the following change:

— It has been split into parts to simplify and relate the technical content of each part to each type of container and also to harmonize the parts of ISO 9897 with the order of container types as contained in the parts of ISO 1496.

It also incorporates the Technical Corrigendum ISO 9897:1997/Cor 1:2001.

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

— *Part 1: General communication codes for general purpose containers*

— *Part 2: Refrigerated containers*

— *Part 5: General communication codes for container chassis*

— *Part 6: Message sets for data transfer between local computer and host computer*

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Freight containers — Container equipment data exchange (CEDEX) —

Part 5:
General communication codes for container chassis

1 Scope

This part of ISO 9897 specifies general communication codes for container chassis and equipment data exchange (CEDEX).

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

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

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

ISO 9897-6:2010, *Freight containers — Container equipment data exchange (CEDEX) — Message sets for data transfer between trading partners and systems*

UN/C-FACT 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 refer to the material of a container. For example, CEDEX code "ST" in material type code list (Annex E) stands for "Steel, carbon." 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 the component, location, or defect. 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 container chassis in their domain.

Specific information about the manufacturer, type, and model of a container or container chassis and its equipment is contained in the message (see 4.2.2).

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 Data 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 necessary codes are not included in this part of ISO 9897. It is strongly recommended that such code be registered in accordance with 4.3 as soon as possible after introduction.

4.2.2 Message sets

Message sets as per ISO 9897-6 are alternative interface messages used for electronic data interchange transmission. An owner or operator can pick and choose amongst other standards and the standard serves as a list of required and optional data elements.

The specific information about the manufacturer, type, and model of a container or container chassis and its equipment is contained in the message sets.

ISO 9897-6:—, Annex A of describes the manner by which a directory of users is developed. The directory is maintained by the Bureau International des Containers et du Transport Intermodal (BIC) listed as BIC-LOCODES at www.bic-code.org.

Table 1 — Data elements and code sets

Data elements	Code set
Message type	See Annex A
Full/empty indicator (container)	See Annex B
Structural condition (container)	See Annex B
Repair condition (container)	See Annex B
Outside coating (container)	See Annex B
Inside coating (container)	See Annex B
Damage location	See Annex C
Damage type	See Annex D
Material type	See Annex E
Repair type	See Annex F
Measure unit specifier	See Annex G
Work scale (standard time factor)	See Annex G
Responsibility (for repair action)	See Annex H
Component for container chassis	See Annex I
Mapping table of ISO to AAR Codes	See Annex J

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 Bureau International des Containers et du Transport Intermodal (BIC) as the Registration authority for the data elements:

Registration authority for ISO 9897

Bureau International des Containers et du Transport Intermodal (BIC)41, rue Réaumur

FR 75003 Paris

France

Phone: +33 1 47660390

Telefax: +33 1 47660891

E-mail: bic@bic-code.org

www.bic-code.org

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.

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

Annex A
(normative)

Code — Message types

Numerical code	Name	Description	Message
01050	Damage/repair estimate	Description of damages and repair methods; authorization for repair work to proceed	DESTIM[a,b]
01060	Damage/repair estimate	Description of damages and repair methods; authorization for repair work to proceed	WESTIM[c] WEST-IMDT[c]

[a] To be used for electronic data interchange transmissions. See appropriate message descriptions published by UN/C-FACT 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 C-FACT TBG3.

[b] EDIFACT codes, message standards (including the relevant message type codes) are controlled by UN/C-FACT, a subsidiary organization to UN/ECE/WP.4. ISO has assented to this arrangement via a memorandum of understanding between ISO and UN/ECE.

[c] To be used for electronic data interchange transmissions. See appropriate message descriptions in ISO 9897-6. The messages of ISO 9897-6 are developed for trading partner systems that do not support EDI. These messages are also used for import and export of data between systems.

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Annex B
(normative)

Structural condition, repair condition, outside coating, inside coating, full/empty indicator

B.1 Structural condition, repair condition, outside coating, inside coating

Numerical code	Name	Description	Message
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
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

B.2 Full/empty indicator

Numerical code	Name	Description	Message
01160	Empty	Empty condition of equipment	E
01170	Full	Loaded condition of equipment	F

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Annex C
(normative)

Damage location — Location coding convention for container chassis

C.1   First character

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

C.2   Second character

The second character defines the major assembly of the container 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**

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C.3   Third and fourth characters

On all container 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 the table below:

SECOND CHARACTER: Assembly (code)	THIRD CHARACTER	FOURTH CHARACTER
Axle-full width (A)	N: Not applicable X: All wheels on axle	C: Centre axle (triaxle unit) F: Front axle N: Not specified R: Rear axle X: All axles
Bumper-rear end (B)	L: Left half N: Not specified R: Right half X: Both halves	N: Not applicable
Frame (main) (F)	Rearmost damaged section (identify left half, right half, or both halves as applicable): 1: Aft section, left half (aft or forward-most point on running gear or slider range if applicable) 2: Central section, left half (between landing gear and aft section) 3: Forward section, left half (forward of landing gear) 4: Aft section, right half 5: Central section, right half 6: Forward section, right half 7: Aft section, both halves 8: Central section, both halves 9: Forward section, both halves N: Not specified X: Entire frame	Forwardmost damaged section: Same codes as third character, except N also used when damage is limited to a single section
Frame extension (Y)	L: Left half N: Not specified R: Right half X: Both halves	F: Front axle N: Not specified R: Rear half X: Both halves
Kingpin/grid/upper coupler (K)	L: Left half N: Not specified R: Right half X: Both halves	F: Front axle N: Not specified R: Rear half X: Both halves

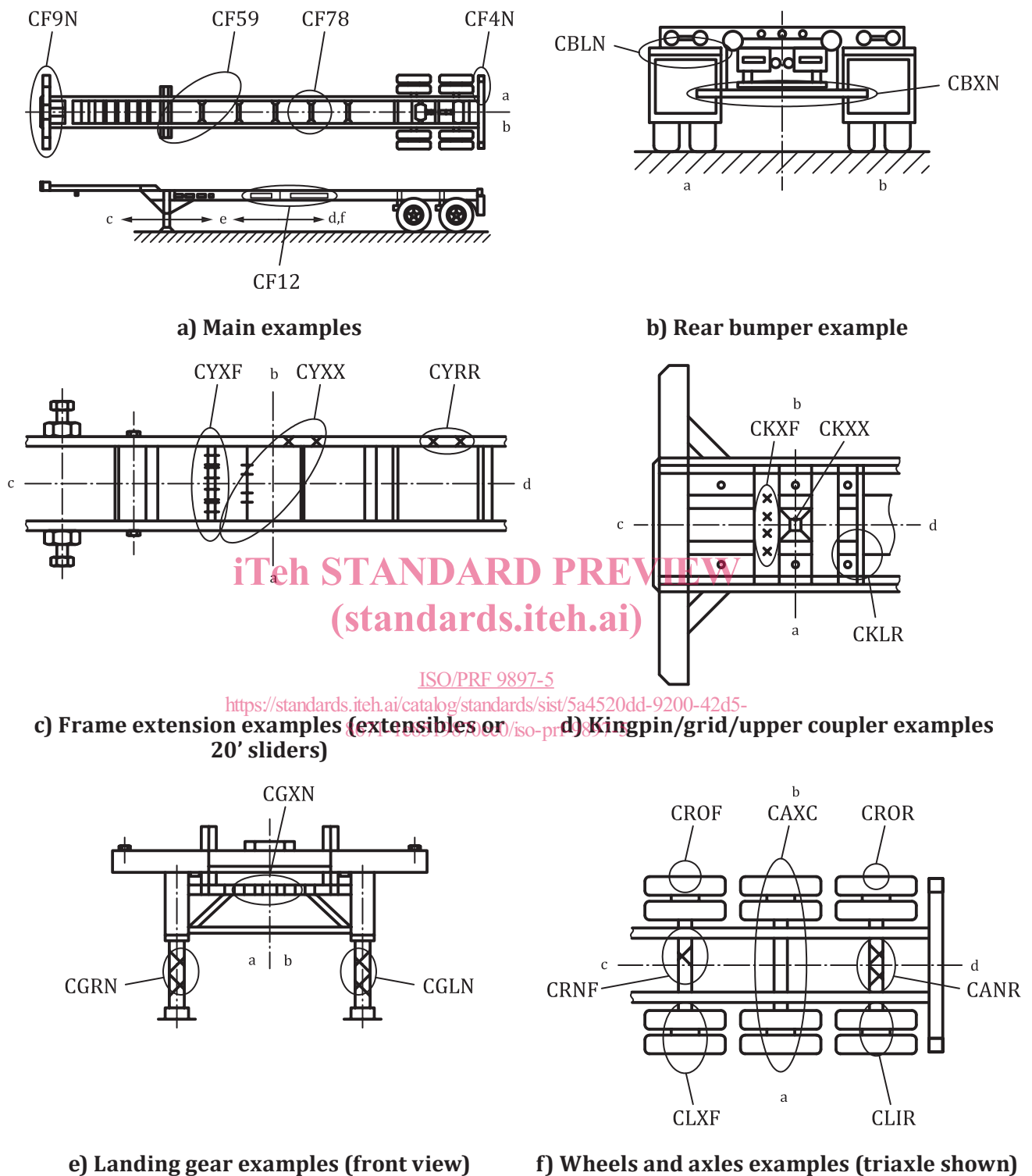| SECOND CHARACTER: Assembly (code)	THIRD CHARACTER	FOURTH CHARACTER
Landing gear (G)	L: Left half N: Not specified R: Right half X: Both halves	N: Not applicable
Left wheel(s) (L)	I: Inside wheel N: Not applicable O: Outside wheel X: Both inside and outside wheels	C: Centre axle (triaxle unit) F: Front axle N: Not specified R: Rear axle X: All axles
Miscellaneous (Z)	N: Not applicable	N: Not applicable
Right wheel(s) (R)	I: Inside wheel N: Not applicable O: Outside wheel X: Both inside and outside wheels	C: Centre axle (triaxle unit) F: Front axle N: Not specified R: Rear axle X: All axles
Subframe/suspension (U)	L: Left half N: Not specified R: Right half X: Both halves	F: Front axle N: Not specified R: Rear half X: Both halves
Unspecified assembly (N)	N: Not applicable X: Entire assembly	N: Not applicable X: Entire assembly
Whole unit (X)	X: Entire assembly	X: Entire assembly

a) Main examples

b) Rear bumper example

c) Frame extension examples (extensibles or 20' sliders)

d) Kingpin/grid/upper coupler examples

e) Landing gear examples (front view)

f) Wheels and axles examples (triaxle shown)

Figure C.1 *(continued)*

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