



BSI Standards Publication

Intermodal Loading Units — Marking

Part 2: Markings of swap bodies related to
rail operation

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee TW/1, Freight containers and swap bodies.

A list of organizations represented on this committee can be obtained on request to its secretary.

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ISBN 978 0 580 64614 0

ICS 35.240.60; 55.180.10

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 28 February 2011.

Amendments issued since publication

Date	Text affected
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English Version

**Intermodal Loading Units - Marking - Part 2: Markings of swap
bodies related to rail operation**Unités de chargement intermodales - Marquage - Partie 2:
Marquages des caisses mobiles pour l'exploitation sur railIntermodale Ladeeinheiten - Kennzeichnung - Teil 2:
Kennzeichnungen von Wechselbehältern für den
Bahnbetrieb

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Foreword

This document (EN 13044-2:2011) has been prepared by Technical Committee CEN/TC 119 “Swap bodies for combined goods transport”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2011, and conflicting national standards shall be withdrawn at the latest by July 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Introduction

This European Standard contains the recommended method of marking Intermodal Loading Units (ILU) to meet current and future requirements.

This European Standard follows the format used in EN ISO 6346, the worldwide accepted standard for marking and coding of marine freight containers. As the above standard can be applied, without alteration, to an ILU, the standard is not directly interchangeable with the ISO standard. However, since the ILU are handled and transported in Europe in the same environment as ISO freight containers, the two standards are compatible.

1 Scope

This European Standard provides a system for the identification and presentation of information about the ILU. The identification system is intended for general application, for example in documentation, control and communication (including automatic data processing systems), as well as for display on the ILU and other non ISO containers (i.e. which dimensions and testing parameters differ from those defined by the applicable ISO standards) used in European transport.

The methods of displaying identification and specific other data (including operational data) on the ILU by means of permanent marks are included.

This European Standard specifies:

- a) an ILU identification system with an associated system for verifying the accuracy of its use, having mandatory marks for the presentation of the identification system for visual interpretation; and
- b) a coding system for data on ILU size, with corresponding marks for their display;
- c) mandatory operational marks;
- d) physical presentation of the marks on the ILU.

This part of the European Standard prescribes the system of operational data for the codification of the swap bodies. The codification assigns a maximum profile for the cover area available at the rail tracks to the swap bodies in order to enable the selection of those rail tracks on which these swap bodies can be transported without any danger.

This part of the European Standard prescribes furthermore the additional operational markings, which are necessary for railway operation.

This European Standard does not cover temporary operational marks of any kind, permanent marks, data plates, etc. which may be required by intergovernmental agreements, national legislation or non-governmental organisations other than CEN.

NOTE Some of the major international conventions whose container-marking requirements are not covered in this European Standard are as follows:

- International Convention for Safe Containers (UN/IMO 1992);
- Customs Convention on Containers 1956 and 1972;
- Customs Convention on International Movement of Goods under Cover of TIR Carnets (TIR-Convention) 1959 and 1975.

It should not be assumed that this list is exhaustive.

This European Standard does not cover the display of technical data on Swap tanks (see EN 1432) nor does it, in any way, include identification marks or safety signs for items of cargo which may be carried in swap bodies.

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.

EN 12642, *Securing of cargo on road vehicles — Body structure of commercial vehicles — Minimum requirements*

EN 13044-1, *Swap bodies — Marking — Part 1: Markings for identification*

CEN/TS 13853, *Swap bodies for combined transport — Stackable swap bodies type C 745-S16 — Dimensions, design requirements and testing*

UIC 596-6, *Conveyance of road vehicles on wagons — Technical organisation — Conditions for coding combined-transport load units and combined-transport lines*

3 Terms and definitions

For the purposes of this document, the following term and definition apply.

3.1 Intermodal Loading Unit ILU

loading unit suitable for European intermodal transport on road, rail, inland waterway and sea, which is not an ISO-container according to ISO 830

EXAMPLE Amongst others swap body, semi-trailer.

4 Operational markings

4.1 Purpose of the operational markings

The operational marking covers the information for codification and for approval of the swap bodies for transportation within the European railway network. The assignment of the operational markings includes:

- the approval of the swap bodies to be transported on the European railway network;
- the assignment of a profile code according to UIC 596-6 for these specific swap bodies.

It is up to the owner of the swap body to choose a horizontal or vertical plate according to the geometry (shape) of the unit or to the place available.

4.2 Structure of the operational marking

A swap body shall be marked according to Figure 1 and Figure 2. The marking with a two-digit profile number is valid for swap bodies having a width equal to or less than 2 550 mm, or a three-digit profile number is valid for swap bodies having a width greater than 2 550 mm but not more than 2 600 mm.

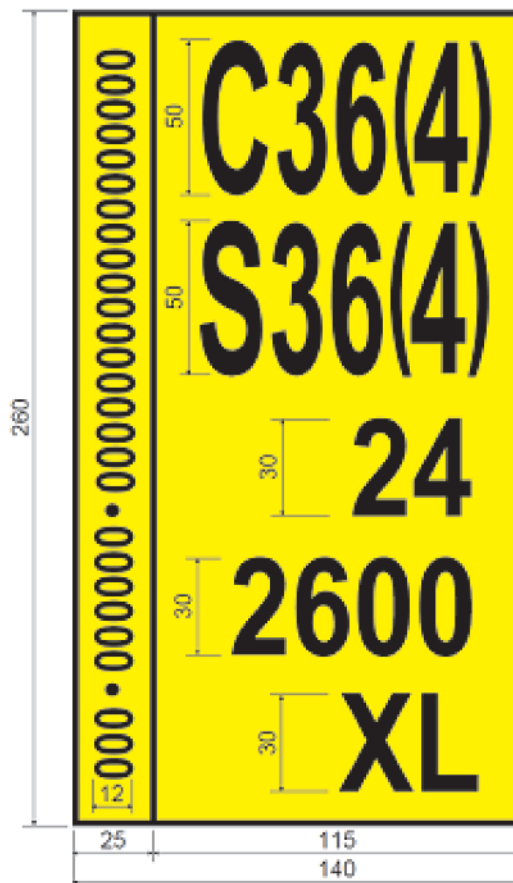


Figure 1 — Shape and content of the operational marking with a 2 or 3-digit profile number on a vertical plate

The items of the marking have the following meaning:

- the code for the railway profile according to UIC 596-6 in connection with 'S' or 'C';
- two digit length code of the swap bodies according to Table 1 and Table 2;
- the width class of the swap bodies in mm (2 500, 2 550 or 2 600);
- indicates the strength of the swap bodies' body, standard or reinforced with the marking referring to EN 12642.

The left part of the marking contains all information about the approval of the swap bodies for the transport on the railway network. The meaning of the numerals is as follows:

- the leading 3 digits are coding the authorised body, which has certified the approval, according to UIC 596-6;
- the following 6 digits, separated by a dot are coding the case number assigned by the certification body;
- the last characters, separated by a dot representing the body frame number of the swap bodies.

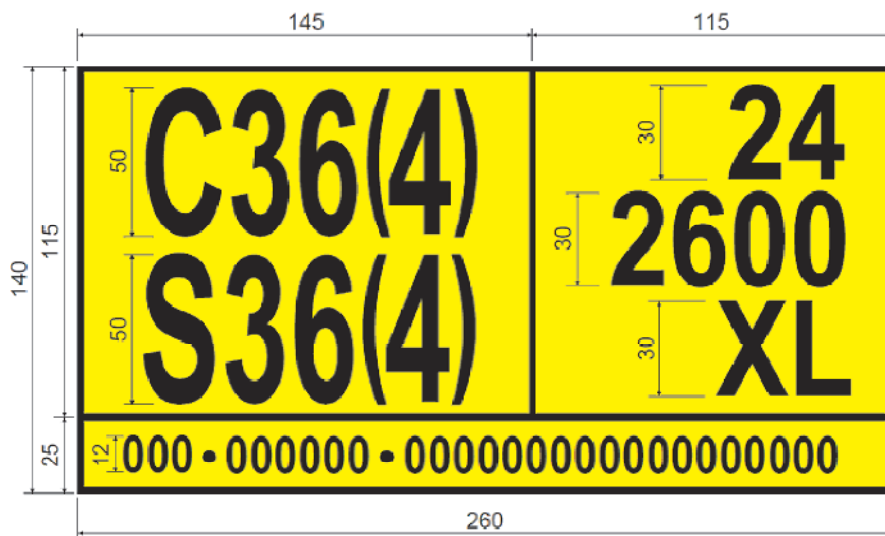


Figure 2 — Shape and content of the operational marking with a 2 or 3-digit profile number on a horizontal plate

Table 1 — Coding of the swap bodies length for symmetrical dimensions

Length code	Maximum length (mm)	Maximum projection (mm)	Distance of corner casting centre points (mm)	Maximum projection (mm)
20	6 058	101,5	5 853 ± 3	101,5
21	6 250	198,5	5 853 ± 3	198,5
22	7 150	648,5	5 853 ± 3	648,5
23	7 450	798,5	5 853 ± 3	798,5
24	7 820	983,5	5 853 ± 3	983,5
26	8 150	1 148,5	5 853 ± 3	1 148,5
30	9 125	101,5	8 918 ± 4	101,5
31	9 300	191,0	8 918 ± 4	191,0
40	12 192	101,5	11 985 ± 4	101,5
42	12 500	257,5	11 985 ± 4	257,5
44	13 100	557,5	11 985 ± 4	557,5
45	13 716	865,5	11 985 ± 4	865,5

Table 2 — Coding of the swap bodies length for asymmetrical dimensions

Length code	Maximum length (mm)	Maximum projection (mm)	Distance of corner casting centre points (mm)	Maximum projection (mm)
60	8.543	1.190	5 853 ± 3	1.500
81	9.275	101,5	8.918 ± 4	253,5
82	9.330	101,5	8.918 ± 4	308,5
84	10.040	101,5	8.918 ± 4	1.018,5
85	10.200	101,5	8.918 ± 4	1.178,5
86	10.900	101,5	8.918 ± 4	1.878,5
91	12.500	101,5	11.985± 4	411,5
94	12.750	101,5	11.985± 4	661,5
95	13.200	257,5	11.985± 4	957,5
96	13.600	715	11.985± 4	900
97	14.040	715	11.985± 4	1.340

5 Location of the marking

The marking plates shall be fixed on each side wall of the swap bodies, preferably at the lower area near the front end (see also EN 13044-1).

6 Assignment of the profile code

The assignment of the profile code shall be according to UIC 596-6.

7 Allocation bodies for coding and their responsibilities

The allocation and assignment of the operational markings for the codification of the swap bodies according to Figure 1 or Figure 2 shall be done only by a Railway Undertaking (RU) certified in Europe or any other approved authority in the country concerned.

Operational markings for codification of swap bodies shall only be assigned for swap bodies fulfilling all tests according to EN 283.

The allocation body is obliged to document the assignment of the codification to the specific swap bodies for later checks.

8 Other operational marks

8.1 General

The marks in this section are not intended to correspond to any particular code (e.g. for use in data transmission or any other purpose). They are solely intended as markings for use on swap bodies to convey specific information or give visual warnings.

8.2 Maximum gross and tare masses

Swap bodies, which will be transported on inland waterways and by sea, shall be mandatory marked with the maximum gross mass and the tare mass in kilogram (kg). For other transport modes for swap bodies these marks are optional. These marks shall be displayed at the door end as follows:

- MAX GROSS 00 000 kg
- TARE 00 000 kg

8.3 Warning sign for not allowed stacking configurations

A stackable swap body that does not meet all requirements of ISO 1496 for stack ability shall be marked with a warning sign according to CEN/TS 13853.

8.4 Warning; Electricity

All swap bodies equipped with ladders shall display a warning sign in accordance with the details given in Annex A.

9 Design of the markings

9.1 Size and colour of the markings

Letters and numbers for MAX GROSS and TARE shall have a minimum size of 50 mm. Width and height of all digits shall have a suitable proportion to each other and the colour shall be in contrast in relation to the colour of the swap bodies.

NOTE It is recommended to use white or black for the letters and numerals.

9.2 Display and location of the markings

9.2.1 General

The requirements of this clause are especially related to swap bodies with solid structure (box type). Display and location of markings for other swap bodies types shall follow these rules as far as possible.

NOTE If not practicable to follow the requirements of this clause, the requirements from EN ISO 6346 may be used.

9.2.2 Location

Signs for limitations and warnings shall, if practicable, be displayed horizontally below the owner code (see EN 13044-1). It is possible to deviate from the horizontal display, if specific characteristics of the swap body require a different display. The markings for max gross and tare shall be displayed at least at the rear end (door end).

Annex A (normative)

Warning; Electricity

The warning sign of electricity for all swap bodies equipped with ladders shall consist of a black symbol on a yellow background, surrounded by a black border (see example below).

The size of the warning sign, measured between the outside edges of the black border, shall be not less than 230 mm.

The mark shall be located in an area adjacent to the ladder.



Figure A.1 — Warning; Electricity

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- [1] EN 283, *Swap bodies — Testing*
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