SLOVENSKI PREDSTANDARD

OSIST prEN 284:2005

januar 2005

Menjalne enote (kesoni) – Menjalne enote (kesoni) tipa C, ki niso namenjene skladiščenju – Mere in splošne zahteve

(istoveten prEN 284:2004)

Swap bodies - Non-stackable swap bodies of class C - Dimensions and general requirements

ICS 55.180.10

Referenčna številka
OSIST prEN 284:2005(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 284

October 2004

ICS

Will supersede EN 284:1992

English version

Swap bodies - Non-stackable swap bodies of class C - Dimensions and general requirements

Caisses mobiles - Caisses mobiles non-gerbable de classe C - Dimensions et spécifications générales

Wechselbehälter - Nicht stapelbare Wechselbehälter der Klasse C - Maße und allgemeine Anforderungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 119.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. prEN 284:2004: E

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Foreword

This document (prEN 284:2004) has been prepared by Technical Committee CEN/TC 119 “Swap bodies”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 284:1992.

Introduction

Non stackable swap bodies of class C are intended for use in the international exchange of goods and for their transportation by road and rail, including interchange between these modes of transport, but not intended for the carriage by container ships. They are equipped with bottom corner fittings positioned in accordance with ISO 668

1 Scope

This European Standard specifies basic requirements for non-stackable swap bodies of class C, having a gross mass of not more than 16 tonnes.

NOTE 1 "Swap bodies of class C" means that they are equipped with bottom fittings positioned according to the specification for 1 C (20') ISO containers (see ISO 668).

NOTE 2 Stackable swap bodies class C are specified in CEN/TS 13853.

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 283; *Swap bodies; testing*

ISO 1161; *Series 1 freight containers – corner fittings - specification*

EN 12640; *Securing of cargo on road vehicles – Lashing points on commercial vehicles for goods transportation – Minimum requirements and testing*

EN 12641-1; *Swap bodies – Tarpaulins – Part 1: Minimum requirements*

EN 12641-2; *Swap bodies – Curtainsiders – Part 2: Minimum requirements*

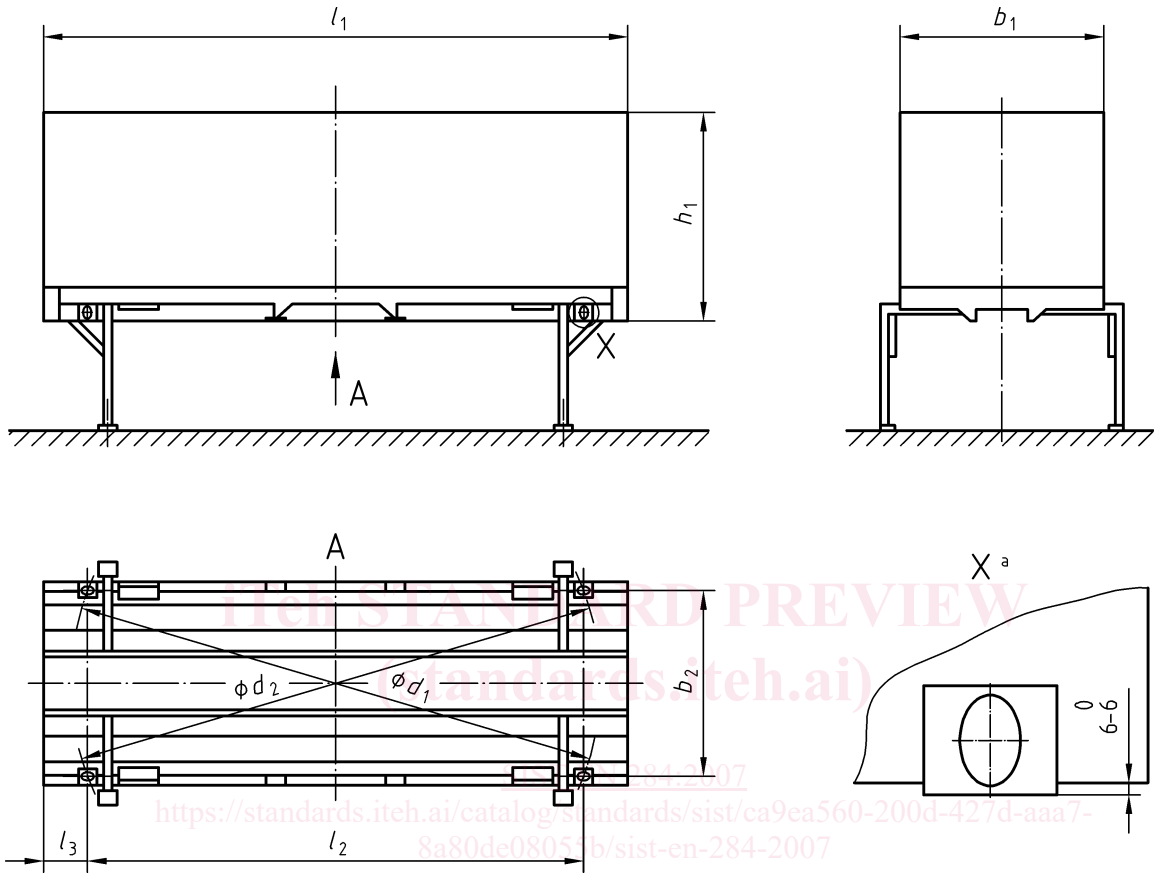
EN 13044; *Swap bodies – Coding, identification and marking*

UIC[1)] 596-6;. *Traffic of road vehicles on wagons; technical organisation; conditions for coding load units in combined transport and combined transport lines*

1) Union Internationale des Chemins de Fer, 16, rue Jean Rey, F-75015 Paris

3 Dimensions and ratings

The external dimensions, tolerances and rating (*R*) of the swap bodies covered by this standard are specified in Figure 1 and Table 1. No part of the swap body shall project beyond the boundaries defined by the external dimensions.



Key: a detail showing the position of the bottom fittings

Figure 1 — Basic dimensions

Table 1 — Dimensions and rating

Dimensions in mm

Swap body designation	l_1	l_2	l_3	h_1[a] (nominal)	b_1[b]	b_2	$d_1 - d_2$ or $d_2 - d_1$	*R*
C 745	7450_{-20}^{0}	5853 ± 3	$798{,}5_{-3}^{0}$	2750	2550_{-10}^{0}	2259 ± 3	13 max.	16 t max.
C 782 [c]	7820_{-20}^{0}		$983{,}5_{-3}^{0}$					

a The International Union of Railways code for line categories UIC 596-6 shall be taken into consideration to assure transportation without hindrance on the main railways lines of continental Europe.

b A maximum width of 2600 mm is permitted for certain thermal bodies according to EC Directive No. 96/53/EC.

c According to present road vehicle legislation in certain countries, the transport of two swap bodies of this size on a road train is only feasible when used together with a short coupling.

4 Strength requirements

The strength requirements for non-stackable swap bodies are given in EN 283.

5 Design Requirements

5.1 Bottom fittings

5.1.1 Swap bodies shall be equipped with four bottom fittings positioned in accordance with Figure 1 and Table 1.

5.1.2 The apertures and basic dimensions of the bottom fittings shall comply with Annex A.

5.2 Grappler arm lifting areas

5.2.1 Swap bodies shall be equipped with four grappler arm lifting areas located as shown in Figure 2. A general view of the design of a typical grappler arm lifting area is shown in Figure 3. Requirements for the location and dimensions of these areas are given in Figure 4.

5.2.2 The total length of each grappler arm lifting area shall be in compliance with one of the following conditions:

a) 850 mm as measured from the axis of the adjacent bottom fittings – additional stop ends not required,

b) 500 mm if fitted with stop ends on either side of that area.

5.2.3 The safety lip, which forms an integral part of the grappler arm lifting area, must have a minimum length of 500 mm, which ever of two solution above applied; i.e. if the total length of the grappler arm lifting area is 850 mm, the safety lip may be removed as shown in Figure 4a) and 4c).

5.2.4 Provision of a wear-resistant plate is recommended to protect the side walls. Such a plate shall not protrude beyond the outer plane of the grappler arm position.

Dimensions in mm

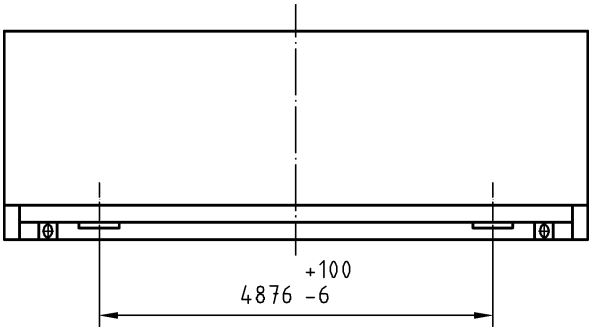


Figure 2 — Side view

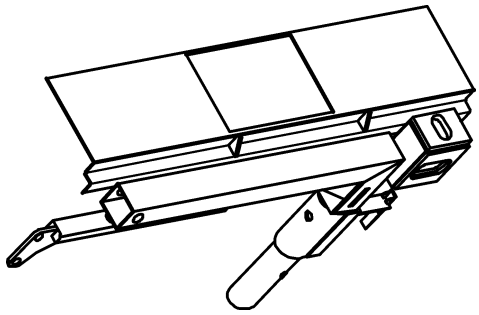


Figure 3 — Grappler arm lifting area – pictorial view (in accordance to 5.2.2 b))

Dimensions in mm

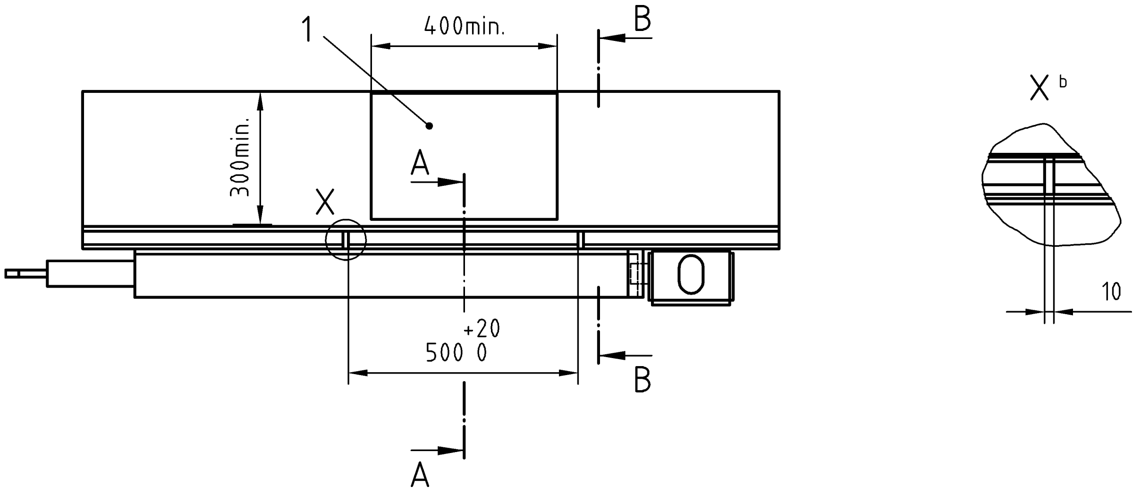


Figure 4a – Grappler arm lifting area – side view

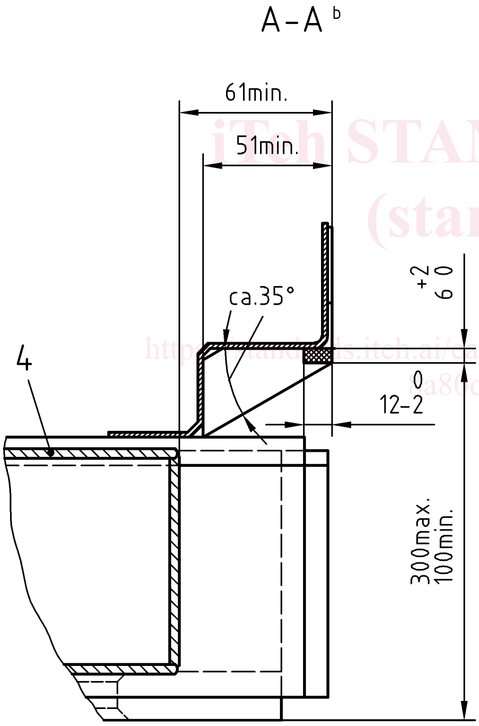


Figure 4b – Grappler arm lifting area – section A-A (box-type)

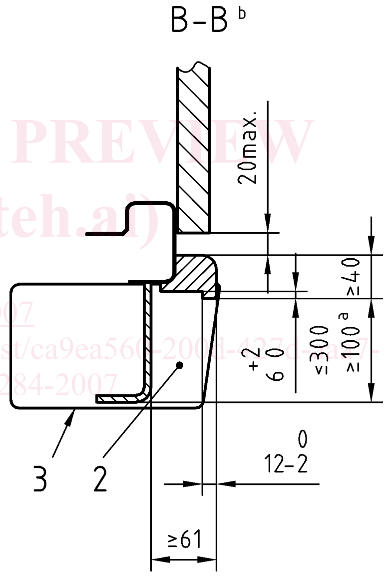


Figure 4c – Grappler arm Lifting area – section B-B (platform gate with tarpaulin bows)

1 wear-resistant plate
2 Neither rigid nor mobile parts shall protrude into this area except for supporting legs in their upright position.
3 Plane of the bottom faces of the fittings.
4 Supporting leg Type A2
a It is recommended that this dimension be larger than 100 mm. (The greater the clearance between the safety lip and the bottom on the side rail, the easier it will be to locate the grappler arms in the lifting position.)
b details in accordance to 5.2.2b)

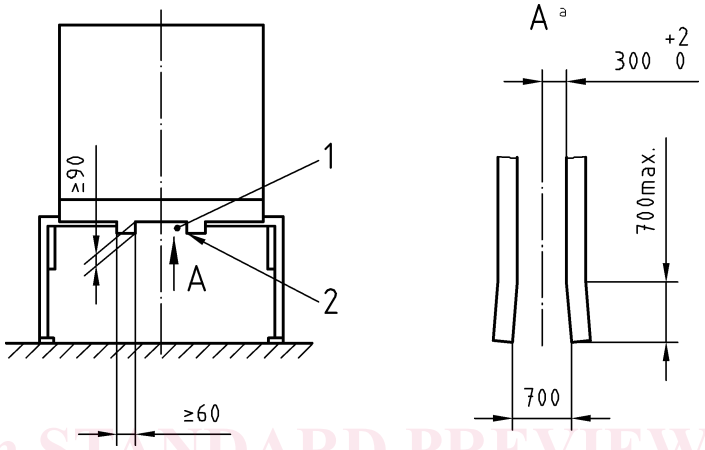
Figure 4 — Grappler arm lifting area – dimensions

5.3 Steering tunnel

Swap bodies shall have a steering tunnel incorporated in their base structure on the longitudinal centreline in accordance with Figure 5. The tunnel shall pass through the entire length of the base structure and be configured to provide load bearing surface at its lower outer edges. These load bearing surfaces shall be in one plane located up to a maximum of 6 mm above the lower surface of the bottom fittings.

A funnel may be provided at the front end of the steering tunnel in order to ease loading onto a vehicle. Where provided, the dimensions specified in Figure 5 shall not be exceeded.

Dimensions in mm



Key
1 Free space (steering tunnel) over entire length
2 Load transfer area over entire length
a centricity of the tunnel (bottom view)

Figure 5 — Steering tunnel

5.4 Front stop

Swap bodies shall be equipped with a stop at the front end wall. The front face of the front stop shall be in accordance with dimension l_3 (see Table 1) and have a minimum width of 800 mm, a minimum height of 8 mm and shall be centred within a zone measuring 800 mm x 160 mm, as illustrated in Figure 6. The front stop may be integrated in the front wall of the swap body.

Dimensions in mm

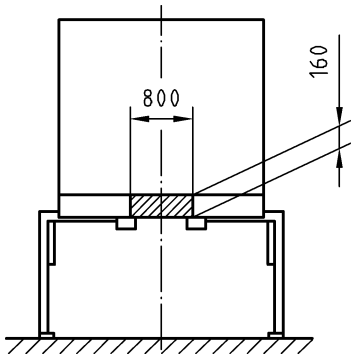


Figure 6 — Front stop