Intermodal Transport Units (other than semi-trailers) for vertical transhipment and suitable for carriage on wagons - Minimum requirements
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.

1. **UIC Leaflets**

   International Union of Railways (UIC)

   *UIC Leaflet 592-3: Large containers (CT), swap bodies (CM) and transport frames for horizontal transhipment (CA) - Standard report on acceptance tests, 2nd edition, January 1998*

2. **International Railway Solution (IRS)**

   International Union of Railways (UIC)

   *IRS 50571-4: Wagons for combined transport - Vertical transhipment - Characteristics, 1st edition, April 2018*

   *IRS 50596-6: Conditions for coding intermodal loading units in combined transport, combined transport lines and wagons, 1st edition, July 2018*

3. **European Standards**

   European Committee for Standardization (CEN)

   *EN 283: Swap bodies - testing, 1991*

   *EN 284: Swap bodies. Non-stackable swap bodies of class C. Dimensions and general requirements, 2006*

   *EN 452: Swap bodies. Swap bodies of Class A. Dimensions and general requirements, 1995*

   *EN 1432: Swap bodies. Swap tanks. Dimensions, requirements, test methods, operating conditions, 1997*

   *EN 12195-1: Load restraint assemblies on road vehicles. Safety. Part 1: Calculation of lashing forces, 2010*

   *EN 12406: Swap bodies. Thermal swap bodies of class C. Dimensions and general requirements, 1999*

   *EN 12410: Swap bodies. Thermal swap bodies of class A. Dimensions and general requirements, 1999*

   *EN 12640: Securing of cargo on road vehicles. Lashing points on commercial vehicles for goods transportation. Minimum requirements and testing, 2000*
EN 12641-1: Swap bodies and commercial vehicles. Tarpaulins. Part 1: Minimum requirements, 2005


EN 13853: Swap bodies for combined transport - Stackable swap bodies type C 745- S16 - Dimensions, design requirements and testing, 2003

EN 14993: Swap bodies for combined transport - Stackable swap bodies type A 1371 - Dimensions, design requirements and testing, 2005

4. International Standards

International Organization for Standardization (ISO)

ISO 668: Series 1 freight containers - Classification, dimensions and ratings, 2013


ISO 1496-1: Series 1 freight containers - Specification and testing - Part 1: General cargo containers for general purposes, 1990


ISO 1496-3: Series 1 freight containers - Specification and testing - Part 3: Tank containers for liquids, gases and pressurized dry bulk, 1995


ISO 6346: Freight containers - Coding, identification and marking, 1995
Introduction

The present leaflet lists all the intermodal transport units (ILUs) other than semi-trailers which may be carried by rail.

It lists the references for standardised ILUs and sets minimum requirements for specific ILUs.

Inventory of ILUs

The following table lists the standards and requirements to be complied with for each type of ILU (see Glossary; for references to standards see Bibliography and points in the present leaflet).

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a. Demonstration of strength is recognised by means of a CSC plate and/or code plate.

b. Specific marking.