

## Informal meeting on Code of Practice for Packing of Cargo Transport Units

### at the request of the United Nations Economic Commission for Europe Working Party on Intermodal Transport and Logistics

Geneva and virtual, 12-13 July 2022

## Proposals for minor editorial changes to the CTU Code

Submitted by ETS Consulting

During the review of the CTU and investigating possible improvements to the CTU Code, it has been evident that there are inconsistencies in the text used throughout the Code. This is primarily due to the manner in which the original Code was drafted. Once written, these editorial inconsistencies are easier to identify and therefore, this paper is submitted to resolve unit of measure inconsistencies.

In the CTU Code there are several references to the unit of measure “ton” which is not a unit recognised by the Metric System of Measurements or the International System of Units (SI). Under these systems the correct unit is the “tonne”.

Other minor editorial changes have been proposed to ensure consistency with other submitted documents,

It is proposed that the following amendments are made:

### Chapter 5 clause 5.3

During transport various forces will act on the cargo. The force acting on the cargo is the mass of the cargo (m) which is measured in kg or ~~ton~~tonne, multiplied by the acceleration (a) which is measured in m/s<sup>2</sup>:

### Chapter 6 clause 6.4.1

- Class A: 12.2 to 13.6 m long (maximum gross mass 34 ~~ton~~tonnes);
- Class B: 30ft (9.125 m long);
- Class C: 7.15, 7.45 or 7.82 m long (maximum gross mass 16 ~~ton~~tonnes).

### Chapter 6 clause 6.4.5

Floors of swap bodies are built to withstand corresponding axle loads of 4,400 kg and wheel loads of 2,200 kg (reference: EN 283). Such axle loads are typical for forklift trucks with a lifting capacity of 2.5 ~~ton~~tonnes.

### Chapter 7 clause 7.2.7

Heavy cargo items lifted by a forklift truck may result in a front axle load exceeding the maximum permissible concentrated load inside a CTU. For ~~example~~example, modern freight containers are designed to withstand a force of 0.5 kN/cm<sup>2</sup> which may limit package masses to approximately 3 to 3.5 ~~tons~~tonnes depending on the type of forklift truck used. For heavy cargo, open top, open side or platform CTUs should be used so that the cargo can be loaded from the top or from the side without a need to drive into the CTU with the forklift truck. [For load distribution, see annex 7, section 3.1.](#)

### Chapter 7 clause 7.3.1

Freight containers, including swap bodies and regional containers designed for stacking and approved under the CSC are basically suitable for all modes of transport. However, freight containers identified as possessing reduced stacking capacity and shown on the approval plate (see annex 4, section 1) and the freight container marked in accordance with the latest edition of ISO 6346 having an allowable stacking mass of less than 192,000 kg marked on the approval plate (see annex 4, section 1) may require special stowage on board a ship, where the superimposed stacking mass will not exceed the permitted limits as marked on the plate. Furthermore, some freight containers and swap bodies may have a gross mass of 34 ~~tons~~tonnes or higher for which some road chassis and railcars will not be capable of carrying such heavy units. Therefore, especially for heavy massed containers, it is of utmost importance to arrange for an appropriate chassis and tractor vehicle or railcar, as applicable.

**Chapter 7 table in clause 7.3.4.2**

Gross vehicle mass (GVM (~~ton~~tonnes))