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Road vehicles — Mechanical couplings between tractors and semi-trailers —

Part 3: Requirements for semi-trailer contact area to fifth wheel

Véhicules routiers — Liaisons mécaniques entre tracteurs et semi-remorques —

Partie 3: Exigences pour plateaux à friction de semi-remorques

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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 document 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).

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 40, *Specific aspects for light and heavy commercial vehicles, busses and trailers*.

This second edition cancels and replaces the first edition (ISO 1726-3:2010), which has been technically revised

The main changes are as follows:

— modification of maximum displacement and load application in Clause 4;

— modification of static test requirements in Clause 5.

A list of all parts in the ISO 1726 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The dimensional interchangeability of truck and trailer is specified in various standards and regulations. In order to be able to design the details and resistance of the coupling devices, the area for the introduction of forces and torques between fifth wheel and kingpin and trailer also needs to be well defined.

Since many fifth wheel coupling plates are designed with certain wear resistance and limited flexibility, it is important to take stiffness into account when designing the mating area of the trailer, which generally is made of steel.

The fact that damage and excessive wear can occur in this area, including broken coupling plates, emphasizes the necessity of this document.

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Road vehicles — Mechanical couplings between tractors and semi-trailers —

Part 3: Requirements for semi-trailer contact area to fifth wheel

1 Scope

This document specifies the test conditions of a static test performed on the semi-trailer contact area to the fifth wheel. It ensures the suitability of the semi-trailer to couple the greatest possible variety of tractor vehicles equipped with a fifth wheel coupling in accordance with ISO 3842.

It also specifies requirements to avoid damages or malfunctions of the fifth wheel coupling caused by the semi-trailer chassis, the semi-trailer plate or any other of its components.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
contact area to the fifth wheel
area surrounding and centred on the kingpin

3.2
test load
maximum vertical static load the semi-trailer manufacturer allows to be transmitted to a fifth wheel

4 Requirements

The unevenness before the test conduction shall not exceed 2 mm at any point within this zone.

During the static test in 5.2, the overall vertical deflection or displacement, *S*, shall not exceed 3,5 mm at any point relative to a plane, spanned by the top surfaces of the support blocks (see Figure 1).

After unloading/discharging, the total unevenness shall not exceed 2 mm at any point within this zone.

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