
**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

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ISO 1726-3 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 15, *Interchangeability of components of commercial vehicles and buses*.

ISO 1726 consists of the following parts, under the general title *Road vehicles — Mechanical couplings between tractors and semi-trailers*:

- *Part 1: Interchangeability between tractors and semi-trailers for general cargo*
- *Part 2: Interchangeability between low-coupling tractors and high-volume semi-trailers*
- *Part 3: Requirements for semi-trailer contact area to fifth wheel*

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, stiffness needs to be taken into account when designing the mating area of the trailer, which generally is made of steel.

The fact that damage can occur in this area, including broken coupling plates, emphasizes the necessity of this part of ISO 1726.

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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 part of ISO 1726 specifies the test conditions of a static test to be performed on the semi-trailer contact area to the fifth wheel. It ensures the ability of the semi-trailer to couple the greatest possible variety of tractor vehicles equipped with a fifth wheel coupling in accordance with ISO 3842.

2 Terms and definitions

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

2.1

contact area to the fifth wheel

circular zone surrounding and centred on the kingpin and having a diameter of 965 mm

2.2

test force

F_v

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

3 Requirements

During the static test described in 4.2, the elastic deformation, δ , shall not exceed 5 mm vertical deflection at any point of the contact area to the fifth wheel during the application of the test force (see Figure 1).

After unloading/discharging, the total unevenness shall not exceed 2 mm at any point within this zone (see Figure 4).

4 Test methods

4.1 General

The verification of the minimum requirements specified in this part of ISO 1726 can be performed by static tests (see 4.2) or adequate calculation, if the deformation is only elastic (see 4.3).

In the case of a static test, the test forces, $F_v/2$, shall be positioned at dimensions X (see Figure 1), and may be either applied in one point or uniformly distributed in accordance with the semi-trailer manufacturer's recommendation.