

INTERNATIONAL STANDARD

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Commercial road vehicles and buses over 3,5 t — Front towing attachments

*Véhicules routiers utilitaires et autobus de plus de 3,5 t — Dispositifs de
remorquage avant*



Reference number
ISO 8035:1991(E)

Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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Commercial road vehicles and buses over 3,5 t — Front towing attachments

1 Scope

This International Standard specifies the characteristics required of attachments mounted on the front of commercial road vehicles and buses (as defined in ISO 3833) of maximum total authorized mass over 3,5 t (ISO-M08). The attachment permits the use of ropes, cables or bars, at the choice of the manufacturer, allowing the vehicle to be towed, or otherwise manoeuvred by other vehicles, or to be used for manoeuvring other vehicles. It excludes attachments for emergency operations, e.g. recovery of road vehicles after an accident.

This International Standard does not apply to special purpose vehicles and standard vehicles used for special applications.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1102:1986, *Commercial road vehicles — Mechanical connections between towing vehicles and trailers — 50 mm drawbar couplings*.

ISO 1176:1990, *Road vehicles — Masses — Vocabulary and codes*.

ISO 3833:1977, *Road vehicles — Types — Terms and definitions*.

ISO 5422:1982, *Road vehicles — Anchorages for towing ropes, cables or bars*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 complete vehicle kerb mass: See ISO 1176 (code ISO-M06).

3.2 maximum authorized total mass: See ISO 1176 (code ISO-M08).

3.3 special purpose vehicles and special applications of standard vehicles: See different types in ISO 3833.

3.4 anchorage: See ISO 5422.

4 Location of attachment

The attachment shall be installed at the front of the vehicle and shall not project in the horizontal plan beyond the exterior contour of the vehicle (body plus bumpers) except during towing.

5 Shape

5.1 The shape of the attachment is left to the discretion of the manufacturer, subject to the condition that it shall comply with the requirements given in this International Standard.

It shall permit the attachment of ropes, cables or bars for towing, without the aid of special tools or auxiliary parts.

It shall permit a displacement of $\pm 50^\circ$ of arc horizontally and $\pm 6^\circ$ vertically of the ends of towing devices (steel rope or bar), fixed between the towing and the towed vehicle.

5.2 The attachment shall not damage the rope, cable or bar during towing.

Any detachable parts shall be secured so that they cannot be lost.

During operation the rope, cable or bar shall not come loose.

5.3 The shape should permit the use of the bar as described in ISO 1102, if the manufacturer agrees to the use of bars for towing the vehicle.

6 Strength

The attachment shall be designed to withstand a static force with a value at least:

- a) $\frac{\text{ISO-M08} \times g}{2}$ for goods transport commercial vehicles;
- b) $\frac{\text{ISO-M06} \times g}{2}$ for passenger transport commercial vehicles (buses)

where

ISO-M08 and ISO-M06 are as defined in 3.2 and 3.1 respectively;

g is the acceleration due to gravity, applied as specified in clause 7.

NOTE 1 In the case of vehicles towing trailers and articulated vehicles, the maximum authorized total mass is the one stated in the note of ISO 1176 for the tractive units.

7 Testing

7.1 Test conditions

The vehicle shall be appropriately immobilized, at maximum authorized total mass or at complete vehicle kerb mass as specified by the vehicle manufacturer, on a firm horizontal surface.

The vehicle manufacturer is allowed, if he desires, to carry out the test on the body or on the chassis of the vehicle in total or in parts, provided that it is fixed rigidly to the bench with attachment links to the front suspension and provided the parts in the surrounding area of the towing device are in place.

7.2 Test procedure

7.2.1 The towing attachment shall be subjected to two tests: one with a static compressive force and the other one with a static tractive force equal to the force defined in 6 a) or 6 b). These forces shall be applied progressively.

7.2.2 Both tests shall be carried out horizontally in the longitudinal vehicle direction.

7.2.3 At the choice of the manufacturer, compliance with the test may also be verified by calculation.

8 Requirements

After each test carried out as specified in clause 7, the vehicle shall meet the requirements set in 8.1 and 8.2.

8.1 The attachment shall show no deformation liable to affect normal operation.

8.2 Devices mounted in the proximity of the attachments (for example compulsory lighting or signalling devices, braking and steering systems) shall show no damage preventing normal operation.

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