

# INTERNATIONAL STANDARD

**ISO  
4009**

Second edition  
1989-12-15

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## Towing vehicles — Mounting of electrical connections on rear cross-members

**iTeh STANDARD PREVIEW**  
*Véhicules tracteurs Montage des dispositifs d'accouplements  
électriques sur la traverse arrière*  
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ISO 4009:1989

<https://standards.iteh.ai/catalog/standards/sist/9941a63c-a221-4bb5-936f-06f083feca3b/iso-4009-1989>



Reference number  
ISO 4009:1989(E)

## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 4009 was prepared by Technical Committee ISO/TC 22, *Road vehicles*.

This second edition cancels and replaces the first edition (ISO 4009:1977), clause 1 of which has been extended.

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# Towing vehicles — Mounting of electrical connections on rear cross-members

## 1 Scope

This International Standard specifies the locations on towing vehicle rear cross-members for the coupling devices which ensure electrical connections with towed vehicles.

It applies to the following electrical coupling devices:

- types 12 N and 24 N connections according to ISO 1185 and ISO 1724;
- types 12 S and 24 S connections according to ISO 3731 and ISO 3732;
- anti-lock device connections according to ISO 7638.

The requirements of this International Standard apply to those towing vehicles normally used for international commercial road transport coupled to towed vehicles the "maximum design towed mass"<sup>1)</sup> of which is greater than 3,5 t.

## 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 1176:—<sup>2)</sup>, *Road vehicles — Masses — Vocabulary and codes.*

ISO 1185:1975, *Road vehicles — Electrical connections between towing vehicles and towed vehicles with 24 V electrical equipment — Type 24 N (normal).*

ISO 1724:1980, *Road vehicles — Electrical connections between towing vehicles and towed vehicles with 6 or 12 V electrical equipment — Type 12 N (normal).*

ISO 1728:1980, *Road vehicles — Pneumatic braking connections between motor vehicles and towed vehicles — Interchangeability.*

ISO 3731:1980, *Road vehicles — Electrical connections between towing vehicles and trailers with 24 V electrical equipment — Type 24 S (supplementary).*

ISO 3732:1982, *Road vehicles — Electrical connections between towing vehicles and trailers with 6 or 12 V electrical equipment — Type 12 S (supplementary).*

ISO 7638:1985, *Road vehicles — Brake anti-lock device connector.*

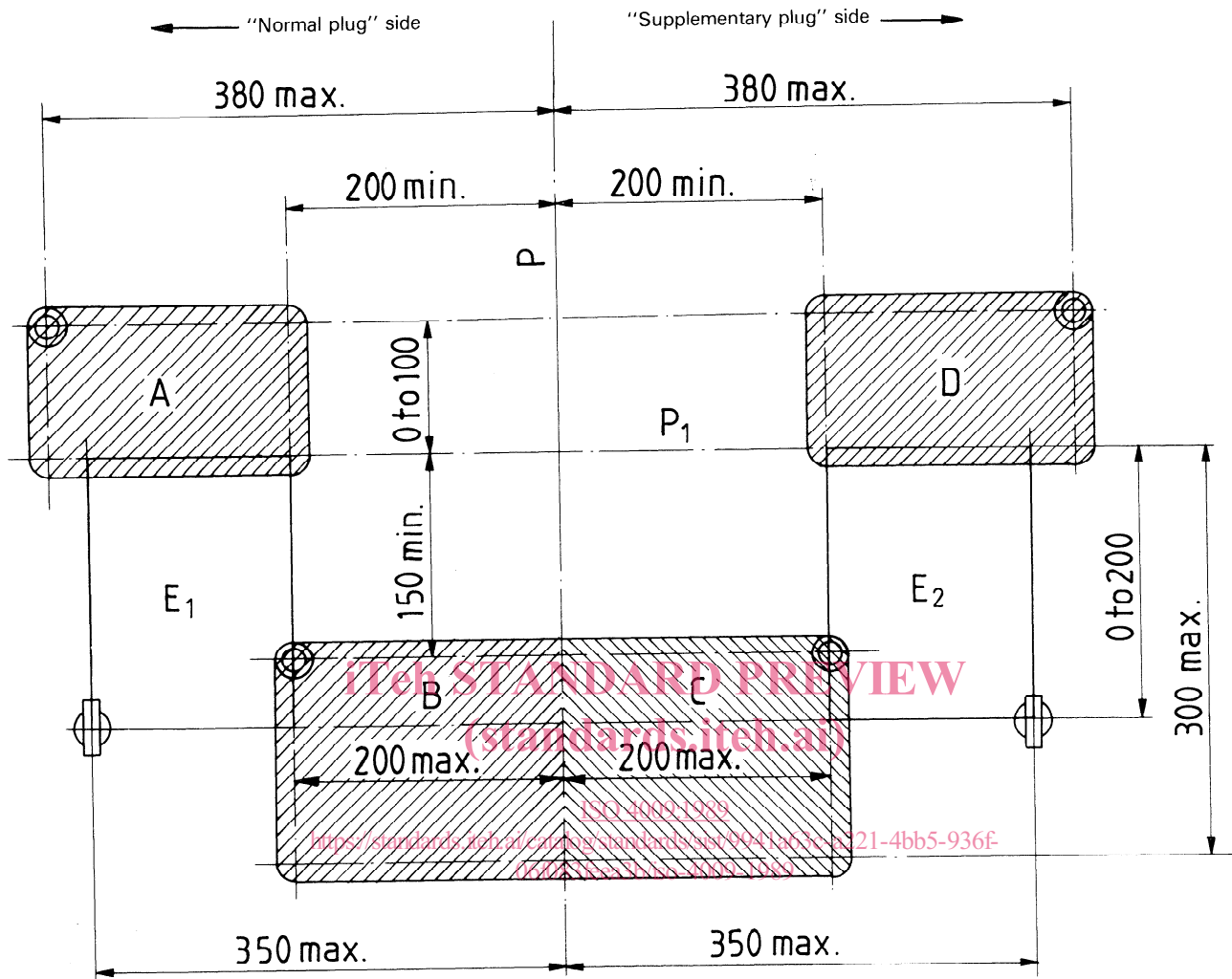
## 3 Location of electrical connections

See figure 1 for the location of the electrical connections.

The clearance dimensions to be provided around the plugs are defined in the International Standards dealing with electrical connections listed in clause 2.

1) This term is defined in ISO 1176.

2) To be published. (Revision of ISO 1176:1974.)



P: Median longitudinal plane of the towing vehicle cross-member

P<sub>1</sub>: Median transverse plane of the towing vehicle rear cross-member

A and B: Mounting zones for "normal" plug

C and D: Mounting zones for "supplementary" plug

B and C: Mounting zones for plug of the brake anti-lock system. In the case where an additional plug is not used, the plug for the anti-lock system may be located in zone D

E<sub>1</sub> and E<sub>2</sub>: Mounting zones for pneumatic braking couplings indicated for information (see ISO 1728)

Figure 1 — Rear view of towing vehicle

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**Descriptors:** road vehicles, commercial road vehicles, tractors, trailers, couplings, electric connections, electric connectors, mounting surfaces, assembling.

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