

# INTERNATIONAL STANDARD

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## Road vehicles — Pneumatic braking connections between motor vehicles and towed vehicles — Interchangeability

*Véhicules routiers — Liaisons de freinage pneumatique entre  
automobiles et véhicules tractés — Interchangeabilité*

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## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 1728 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 2, *Braking systems and equipment*.

This third edition cancels and replaces the second edition (ISO 1728:1980), which has been technically revised.

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# Road vehicles — Pneumatic braking connections between motor vehicles and towed vehicles — Interchangeability

## 1 Scope

This International Standard specifies the requirements which ensure interchangeability of the pneumatic braking connections between motor vehicles and towed vehicles.

It concerns vehicle combinations equipped with pneumatic braking systems with two lines: one control line and one supply line.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4009, *Commercial vehicles — Location of electrical and pneumatic connections between towing vehicles and trailers*

## 3 Interchangeability requirements

### 3.1 Coupling head type

The “Palm type” coupling head shall be used. It shall be fitted with an inhibiting device to prevent incorrect coupling (see Figures 1 and 2).

The towing vehicle shall be equipped with an automatic device ensuring, without manual operation, the continuity of the pipelines when they are coupled, and their closure on uncoupling. This device shall not affect the interchangeability.

The coupling head shall make provision for any type of valve to be fitted to the towing vehicle, provided that the valve can be opened by the standard coupling head on the towed vehicle and that the ability to be coupled with all coupling heads corresponding to this International Standard is not compromised.

### 3.2 Coupling head dimensions

The dimensions of the coupling heads shall be as given in Tables 1 and 2, and shown in Figures 1 and 2.

This International Standard specifies only the dimensional details necessary for the coupling. All other dimensions not shown, as well as details of design, are left to the discretion of the manufacturer.

### 3.3 Location of coupling heads and flexible pipe connections

The locations of both electrical and pneumatic connections between towing and towed vehicles are specified in ISO 4009. The location of coupling heads and flexible pipe connections on the towing and towed vehicles shall comply with ISO 4009.

### 3.4 Colour coding for connections

For the supply line: RED.

For the control line: YELLOW.

The colour shall be related to the coupling head or to a clearly visible point close to the head, for example, pipes or an identification tag.

### 3.5 Orientation of coupling heads

The coupling axis of the fixed coupling heads shall be horizontal. The vertical sealing face shall be located as follows, according to whether it concerns a road train or an articulated road train:

- truck: towards the right when the vehicle is viewed from the rear;
- semi-trailer: towards the left when the vehicle is viewed from the rear.

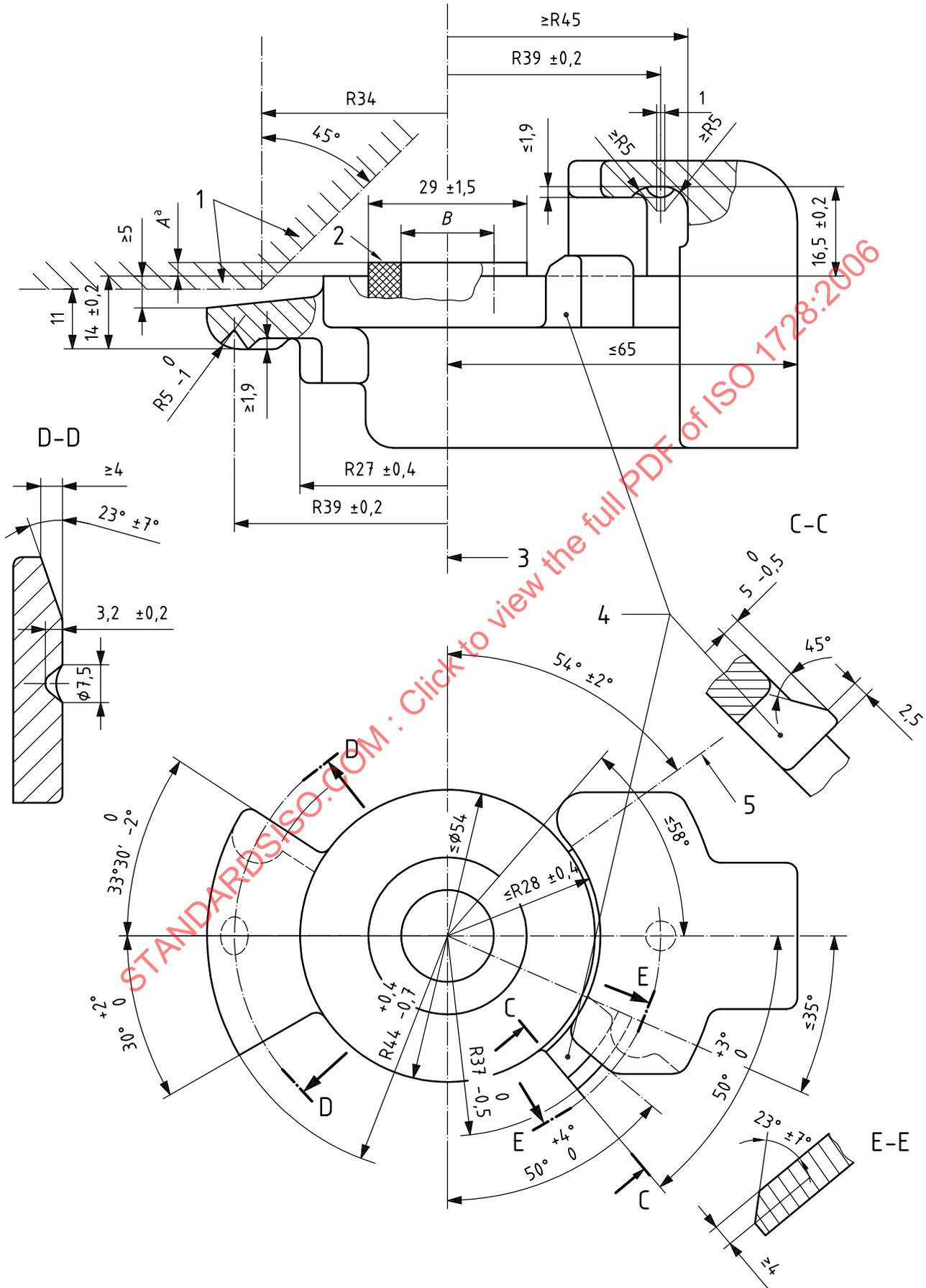
### 3.6 Length of flexible pipe connections

The length of the flexible pipe connections between towing and towed vehicles is specified in ISO 4009. The length of flexible pipe connections on the towing and towed vehicles shall comply with ISO 4009.

**Table 1 — Dimensions for coupling head for supply line**

Connection	$A^a$ mm	$B$ mm
With resilient sealing ring (for heads "tractor" and "trailer")	$2,7 \pm 0,5$	$\varnothing 19 \pm 2$
With mobile part providing for the opening of the automatic valve (see 3.1)	$3,5 + 1$	$\varnothing 21$ max. $\varnothing 11$ min.
<sup>a</sup> The opening of the automatic device shall be assured even when two coupling heads with the most adverse tolerances for pushing down the mobile part are connected together. It shall be possible to push down the sealing face until the dimension $A$ is at zero.		





**Key**

- 1 minimum free space for the crossing of inhibiting device of the other head
- 2 sealing face
- 3 coupling axis
- 4 inhibiting device
- 5 stop

**Figure 2 — Coupling head for control line****Table 2 — Dimensions for coupling head for control line**

Connection	$A^a$ mm	$B$ mm
With resilient sealing ring (for heads "tractor" and "trailer")	$2,7 \pm 0,5$	$\varnothing 19 \pm 2$
With mobile part providing for the opening of the automatic valve (see 3.1)	$3,5 + 1$	$\varnothing 21$ max. $\varnothing 11$ min.

<sup>a</sup> The opening of the automatic device shall be assured even when two coupling heads with the most adverse tolerances for pushing down the mobile part are connected together. It shall be possible to push down the sealing face until the dimension  $A$  is at zero.