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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 20717-2024

Replacing GB/T 20717-2006

**Road vehicles - Connectors for the electrical connection of
towing and towed vehicles (15-pole) - 15-pole connector for
vehicles with 24 V nominal supply voltage**

道路车辆 牵引车和挂车之间的电连接器（15 芯）24V15 芯型

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 20717-2006 "Electrical connectors between road vehicles tractors and trailers 24V 15 core type" and Compared with GB/T 20717-2006, in addition to

structural adjustments and editorial changes, the main technical changes are as follows.

- a) Replace the normative reference GB/T 5053.3 with ISO 4091 (see Chapter 3, 6.1, 6.3, Chapter 3, 6.1, 6.3 of the 2006 edition);
- b) The dimensions and markings of some plugs have been changed (see Figure 1, Figure 1 of the 2006 edition);
- c) The dimensions and markings of some sockets have been changed (see Figure 2, Figure 2 of the 2006 edition);
- d) Deleted the requirements for connector location and free space (see 5.2 of the 2006 edition);
- e) Replace the normative reference GB/T 5054 with ISO 4141 (see 5.5, 5.5 of the 2006 edition);
- f) Replace the normative references GB/T 20716.1 and GB/T 20716.2 with ISO 7638-1 and ISO 7638-2 (see 6.2, 6.2 of the 2006 edition);
- g) Replace the normative reference GB/T 5053.1 with ISO 1185 (see A.1, A.3, A.4, 2006 edition A.1, A.3, A.4).

This document is equivalent to ISO 12098:2020 "Electrical connector between road vehicle tractor and trailer 24V 15 core type". The following minimal editorial changes were made to this document.

--- In order to coordinate with the existing standards, the name of the standard is changed to "Electrical connector (15 core) 24V between road vehicle tractors and trailers 15 core type".

1 Scope

This document specifies the dimensions, application, testing and special requirements of 15-pin electrical connectors.

This document applies to the electrical equipment between the tractor and its trailer with a nominal voltage of 24V, except the braking system and the running system.

The invention relates to a connection, and is also applicable to a storage socket for storing the plug when the plug and the socket are separated, and a conversion device between 7-core and 15-core connectors.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

ISO 1185 Electrical connector between road vehicles tractor and trailer 7-pin 24V standard (24N)

Note: GB/T 5053.1-2006 Electrical connector between road vehicles tractor and trailer 7-core 24V standard type (24N) (ISO 1185:2003, IDT)

ISO 3731 Road vehicles - Electrical connectors between tractors and trailers - 24V 7-pin auxiliary type (24S)

Note: GB/T 25088-2010 Electrical connectors between road vehicles tractors and trailers 24V 7-core auxiliary type (24S) (ISO 3731:2003, MOD)

ISO 4091 Definitions, test methods and requirements for electrical connectors between tractors and trailers for road vehicles

Note: GB/T 5053.3-2006 Definition, test methods and requirements for electrical connectors between road vehicles tractors and trailers (ISO 4091:2003, IDT)

Note: GB/T 5054 (all parts) Multi-core connecting cables for road vehicles [ISO 4141 (all parts)]

ISO 7638-1 Road vehicles - Electrical connectors between tractors and trailers - Part 1: Braking systems for vehicles with a nominal voltage of 24 V

Note: GB/T 20716.1-2006 Road vehicles - Electrical connectors between tractors and trailers - Part 1: Braking systems for vehicles with a nominal voltage of 24 V Connection with the traveling system (ISO 7638-1:2003, IDT)

ISO 7638-2 Road vehicles - Electrical connectors between tractors and trailers - Part 2: Braking systems for vehicles with a nominal voltage of 12 V

Note: GB/T 20716.2-2006 Road vehicles - Electrical connectors between tractors and trailers - Part 2: Braking systems for vehicles with a nominal voltage of 12 V Connection with the traveling system (ISO 7638-2:2003, IDT)