



The representative body of the British Caravan Industry

National Caravan Council LTD

BRICKVILLE HOUSE 40 PICCADILLY LONDON W1V 0ND
TELE: 01-734 3881-2 Secretary General: W. R. Jones, OBE

AM/KM

5th June, 1969

To: All Manufacturer Members
All Trader Members
Selected Supplies & Services Members

Dear Member,

British Standard For 7 Pin Electrical Connector.

The long awaited B.S. AU 149 : 1969 concerning the specification for 7-pin Plug and Socket Connector for Caravans and Trailers with 6 and 12 volt Electrical Systems has now been published.

A copy of this Standard is enclosed for your information and action. No doubt you are already complying with the requirements of this Standard. However, please check and ensure that all caravans you produce or equip in future comply with this Standard in all respects.

Yours sincerely,

Alan MacDonald
Assistant Secretary

BRITISH STANDARD : AUTOMOBILE SERIES
SPECIFICATION FOR
7 PIN PLUG AND SOCKET CONNECTOR FOR
CARAVANS AND TRAILERS WITH
6 AND 12 VOLT ELECTRICAL SYSTEMS

FOREWORD

This British Standard has been prepared under the authority of the Automobile Industry Standards Committee of BSI. The dimensions and the numbering and functions of the electrical contacts are based upon and interchangeable with those of a similar connector for which a Recommendation is being prepared by the International Organization for Standardization (ISO).

SPECIFICATION

1. SCOPE

This British Standard specifies the basic dimensions and other essential features for a 7 pin plug and socket for use on caravans and light trailers with 6 and 12 volt electrical systems. Details of the contact designation numbers and their corresponding electrical functions are given.

NOTE 1. This connector is normally used on caravans and trailers whose gross laden weight does not exceed 3500 kg (3.45 ton).

NOTE 2. Information on a 7 pin plug and socket connector for use on trailers with 24 volt electrical systems is given in BS AU ...*.

2. DIMENSIONS

2.1 Flanged socket. The dimensions of the flanged socket, which is fitted to the towing vehicle, and of the electrical contacts shall be as shown in Fig. 1.

2.2 Plug. The dimensions of the plug, which is fitted to the connecting cable from the caravan or trailer, and of the electrical contacts shall be as shown in Fig. 2.

2.3 Plug and socket assembly. The clearance dimensions required on the towing vehicle for mounting the plug and socket assembly are shown in Fig. 3.

3. DESIGN

3.1 Socket. The socket shall be provided with four insulated contact tubes, numbered 1, 3, 4, and 6 and with three insulated contact pins, numbered 2, 5 and 7.

Contact no. 3 shall be insulated similarly to the other contacts but shall be connected to earth on the towing vehicle to which it is fitted.

The appropriate contact numbers shown in Fig. 1 shall be permanently and legibly marked on the surface adjacent to the contact terminals and on the inside of the cover with figures not less than 2 mm high.

Each socket shall be fitted with a cover designed to retain the plug when it is connected, and to close and to provide protection against the ingress of water when a plug is disconnected.

*BS AU ..., '7 pin plug and socket connector for trailers with 24 volt electrical systems'. (In course of preparation.)

3.2 Plug. The plug shall be provided with four contact pins, numbered 1, 3, 4 and 6, and three contact tubes numbered 2, 5 and 7.

The appropriate contact numbers shown in Fig. 2 shall be permanently and legibly marked on the surface adjacent to the contact terminals with figures not less than 2 mm high.

The plug shall be provided with a cable grip and the point of entry of the cable into the plug shall be waterproof.

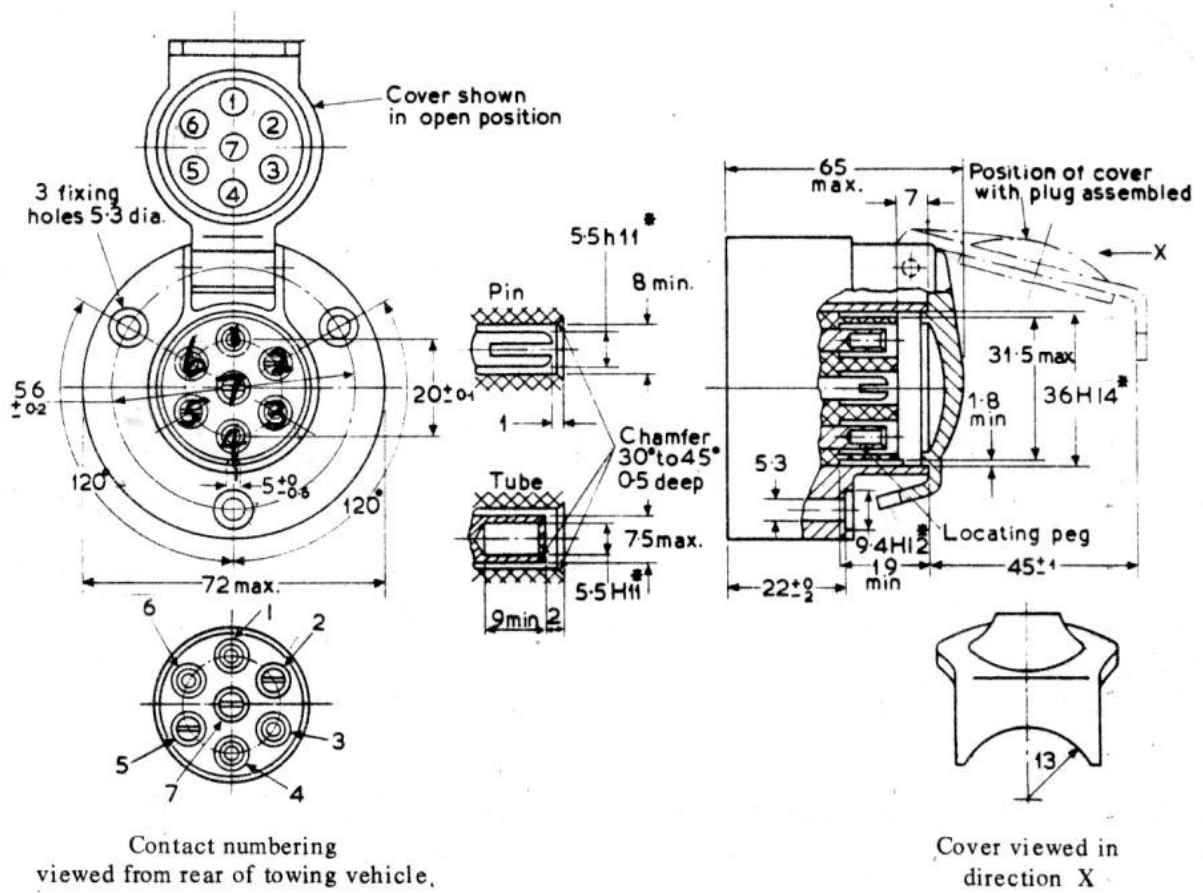
4. ELECTRICAL CONTACTS

4.1 The pin contacts in both the plug and the socket shall be self-aligning and shall be flexible for a length not less than 8.5 mm. The flexibility may be achieved by means of a longitudinal slot as shown in Figs. 1 and 2.

4.2 Electrical circuits. The circuits corresponding to the contact numbers specified in Clause 3 shall be as follows:

- (1) Left-hand direction indicator.
- (2) Spare.
- (3) Common return.
- (4) Right-hand direction indicator.
- (5) Right-hand tail lamp, number plate lamp and, where fitted, right-hand marker lamps.
- (6) Stop lamps.
- (7) Left-hand tail lamp and, where fitted, left-hand marker lamps.

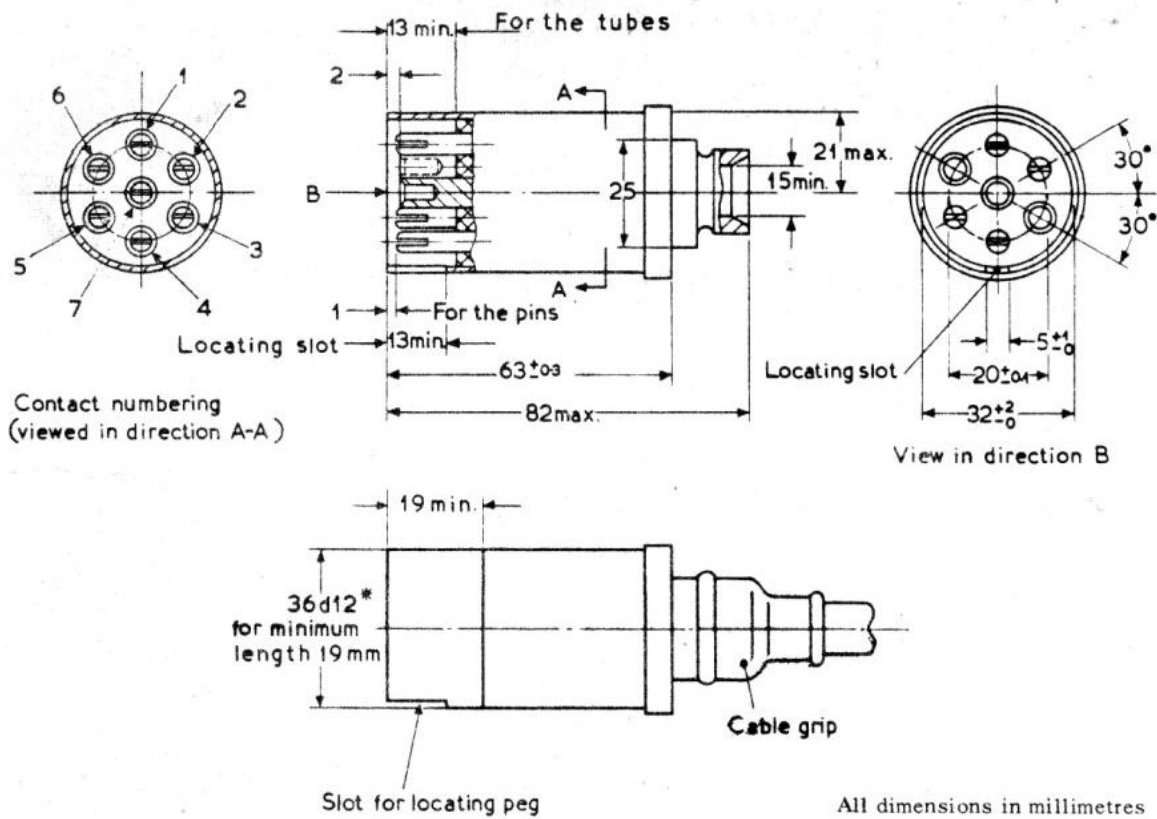
4.3 Terminals. Each terminal shall be capable of accepting two cables, each of 1.5 mm cross-sectional area.



All dimensions in millimetres

*Limits to BS 1916, 'Limits and fits for engineering'.

Fig. 1. Socket and details of contacts



*Limits to BS 1916, 'Limits and fits for engineering'.

Fig. 2. Plug

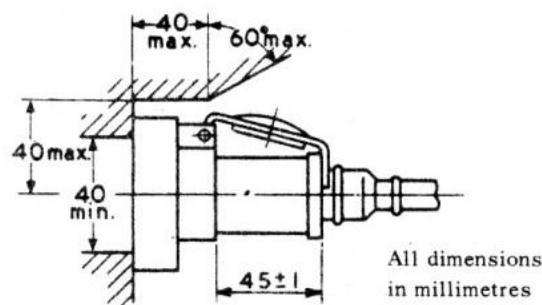


Fig. 3. Plug and socket assembly showing clearance dimensions for mounting on towing vehicle.

This British Standard, having been approved by the Automobile Industry Standards Committee, was published under the authority of the Executive Board of the Institution on 31 March, 1969.

The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following BSI reference relates to the work on this standard: Committee reference AUE/-