

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

*(Not to be reproduced without permission of BIS or used as an Indian Standard)*

*भारतीय मानक मसौदा*

कर्षण वाहन तथा ट्रेलर के बीच यांत्रिक संयोजनों के लिए कर्षदण्ड छेद - विशिष्टि  
(पहला पुनरीक्षण)

*Draft Indian Standard*

**DRAWBAR EYES FOR MECHANICAL CONNECTIONS BETWEEN TOWING  
VEHICLES AND TRAILERS — SPECIFICATION**  
*(First Revision)*

ICS: 43.040.70

---

Not to be reproduced without permission of BIS  
or used as standard

Last date for receipt of comments  
is XX/XX/XXXX

---

Transport Tractors, Trailers and Industrial Trucks Sectional Committee, TED 22

## FOREWORD

**(Formal clause will be added later on)**

This Indian Standard was adopted by the Bureau of Indian Standards on 18 August 1989, after the draft finalized by the Transport Tractors and Trailers Sectional Committee had been approved by the Transport Engineering Division Council.

In order to achieve international co-ordination on the subject, this standard is based on the following specifications:

- a) ISO/DIS 8755 Commercial road vehicles — Mechanical connections between towing vehicles and trailers - 40 mm drawbar coupling; and
- b) ISO/DIS 1102 Commercial road vehicles — Mechanical connections between towing vehicles and trailers - 50 mm drawbar coupling

In this first revision following changes have been incorporated:

- a) Clause **4.3** of Test for Strength has been incorporated;
- b) References, ICS No. have been updated; and
- c) Other editorial changes have been done to bring the standard in the latest style and format of Indian Standards

The composition of the Committee responsible for the formulation of this standard is given at **Annex A (Will be added later)**.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of test or analysis, shall be rounded off in accordance with IS 2: 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Draft Indian Standard*

**DRAWBAR EYES FOR MECHANICAL CONNECTIONS BETWEEN TOWING  
VEHICLES AND TRAILERS — SPECIFICATION**  
*(First Revision)*

**1 SCOPE**

**1.1** This Indian Standard specifies the essential dimensional characteristics of 40 mm and 50 mm drawbar eyes to permit interchangeability between towing vehicles and trailers equipped with these connections.

**1.2** These mechanical connections are not interchangeable with each other.

**1.3** This standard applies to mechanical connections designed for commercial vehicles and trailers operating on/off highways, the maximum total weight of which is above 3.5 t.

**2 REFERENCES**

The standards given below contain provisions which, through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

<i>IS No.</i>	<i>Title</i>
IS 12604: 1989	Dimensions for mounting of mechanical coupling devices on trucks
IS 13284: 1992	Automotive vehicles - Drawbar couplings and eyes for hinged drawbars - Method of test for strength

**3 TERMINOLOGY**

**3.1** For the purpose of this standard, the terms relating to drawbar eyes, shall be as illustrated in Fig. 1 to 3.

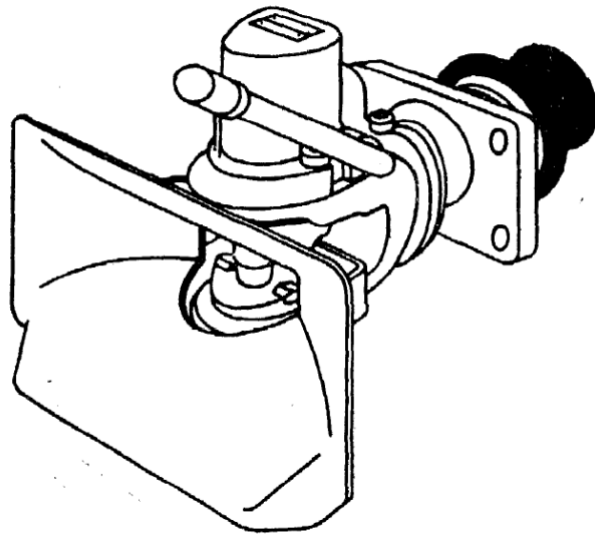


Fig. 1 Drawbar Coupling

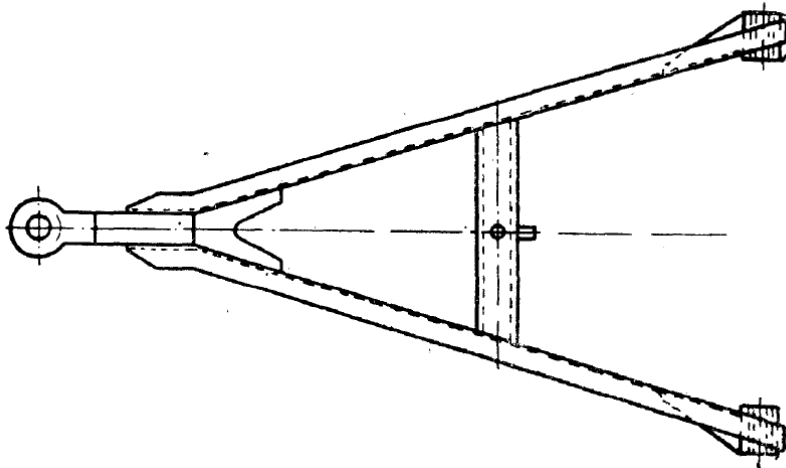


Fig. 2 Drawbar

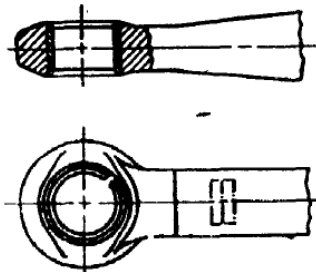


Fig. 3 Drawbar Eye

4 DIMENSIONS



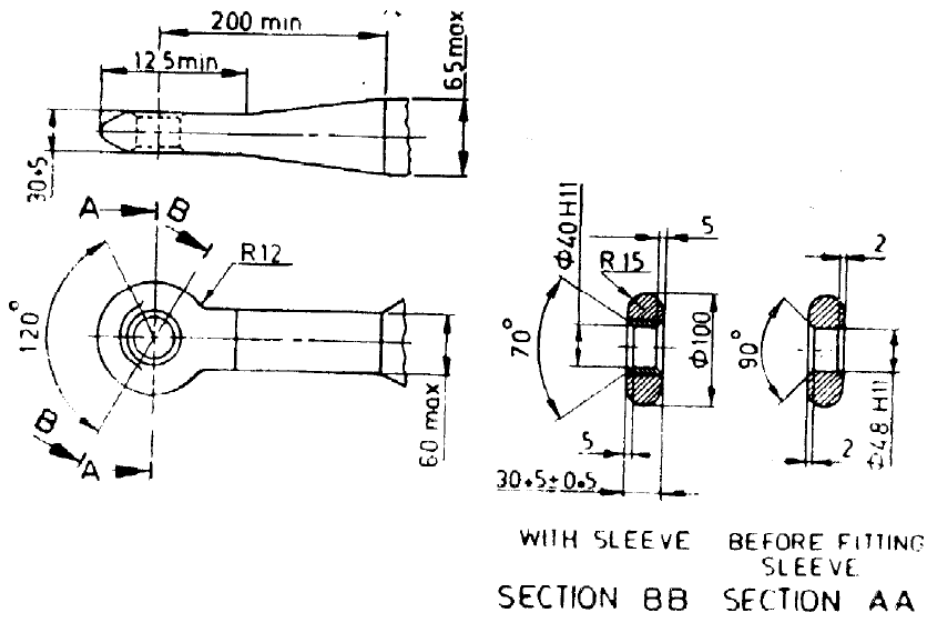


Fig. 4B - 40 mm Drawbar Eye  
All dimensions in millimeters.

Fig. 4 Dimensions for Drawbar Eye

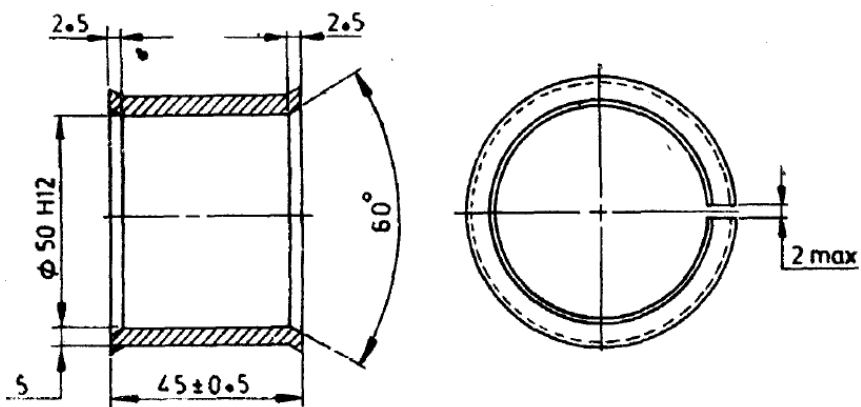


Fig. 5A - 50 mm Sleeve

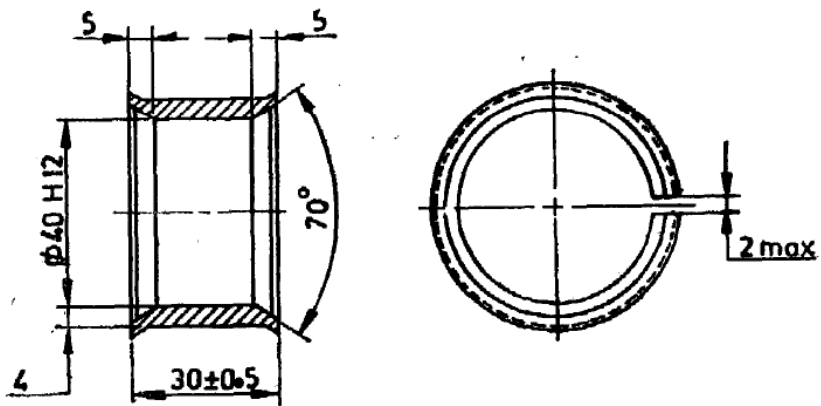


Fig. 5B - 40 mm Sleeve  
All dimensions in millimeters.

Fig. 5 Dimensions for Sleeve

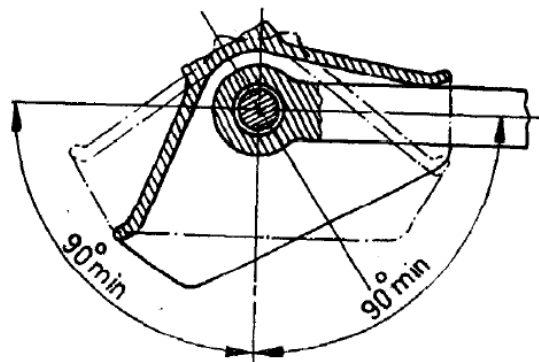


Fig. 6 Horizontal Angle

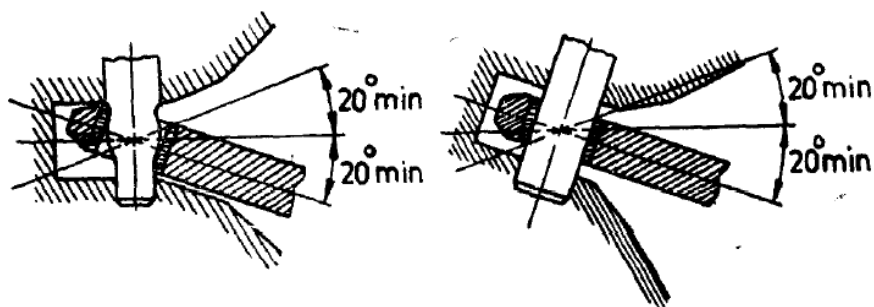


Fig. 7 Vertical Angle

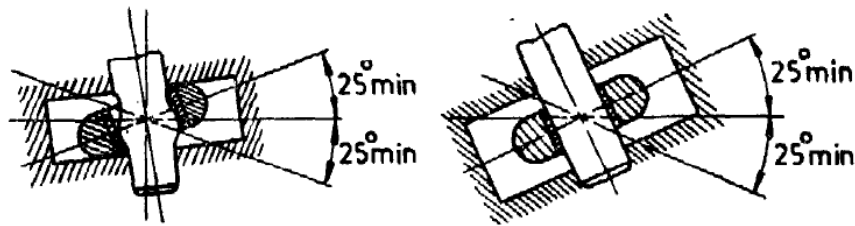


Fig. 8 Rotation Angle

### 4.3 Test for Strength

Strength of Drawbar eye is an essential aspect as it is used as a solid coupling between a hauling vehicle and its hauled load. The test conditions and strength requirements to be met by 40 mm and 50 mm drawbar couplings, and the corresponding drawbar eyes for hinged drawbars shall be determined in accordance with IS 13284.

## 5 MARKING

### 5.1 BIS Certification Marking

Each drawbar eyes may also be marked with the Standard Mark.

**5.1.1** The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations made thereunder. The details of conditions under which the license for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.



**ANNEX A**  
*(Foreword)*

**COMMITTEE COMPOSITION**

TRANSPORT TRACTORS, TRAILERS AND INDUSTRIAL TRUCKS SECTIONAL  
COMMITTEE, TED 22

**Will be added later**