

BUREAU OF INDIAN STANDARDS

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Draft Indian Standard

**SPECIFICATION FOR TOWING JAW FOR USE BETWEEN TRAILERS OF UP TO 16
TONNES GROSS MASS AND TRANSPORT TRACTOR**

(ICS 43.040.70)

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

Last date for receipt of
comments is 05/05/2022

TED 22 (19074) P

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

FOREWORD

(Formal clause to be added later)

The requirements of this standard, which relate only to vehicles used on the public highways, are intended to ensure the maximum degree of compatibility between commercial and government department standards.

Towing jaws may be forged or cast.

The material specifications are for the minimum qualities acceptable, and do not exclude the use of other materials provided that these are at least equal in quality so that road safety is not impaired.

This standard should be used in conjunction with IS: 8274-XXXX¹⁾. The jaw has been designed to accommodate a drawbar eye of 51 mm internal diameter and 40 mm stock or 76 mm internal diameter and 40 mm stock.

The standard applies to connections to trailers of up to 16 tonnes gross mass. The specification for a towing jaws for connections to trailer of up to 35 tonnes gross mass is given in IS : 8296-XXXX¹⁾ and for trailers of up to 5 tonnes gross mass is given in IS : 8298-XXXX¹⁾.

In the preparation of this standard, considerable assistance has been derived from BS AU 26 : 1964 ' Specification for towing jaw for use between trailers of 5-16 tonnes gross weight and towing vehicle ', issued by the British Standards Institution.

The composition of the committee responsible for formulation of this standard is given as 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 a test or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

NOTE — Standards Marked with superscript '1)' are under the process of Revision. The year of publication of these standards will be updated at the time of printing of this draft standard.

*Draft Indian Standard***SPECIFICATION FOR TOWING JAW FOR USE BETWEEN TRAILERS OF UP TO 16 TONNES GROSS MASS AND TRANSPORT TRACTOR****1 SCOPE**

1.1 This standard specifies the basic dimensions and quality of materials for a towing jaw and its mountings, for use in connection between a transport tractor and a trailer of up to 16 tonnes gross mass.

1.2 The gross mass refers to gross laden train masses where more than one trailer is drawn.

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 1875 : 1992	Carbon steel billets, blooms, slabs and bars for forgings - Specification (Fifth Revision)
IS 1030 : 1998	Carbon steel castings for general engineering purposes - Specification (Fifth Revision)
IS 5517 : 1993	Steels for hardening and tempering - Specification (Second Revision)
IS 8299 : XXXX ¹⁾	Specification for towing hook for use between trailers of up to 16 tonnes gross mass and transport tractor
IS 8300 : XXXX ¹⁾	Specification for towing hook for use between trailers of up to 35 tonnes gross mass and transport tractor
IS 1364 (Part 1) : 2018	Hexagon head bolts, screws and nuts of product grades A and B: Part 1 hexagon head bolts (Size Range M 1.6 To M 64) (Fifth Revision)
IS 8297 : XXXX ¹⁾	Specification For Towing Jaw For Use Between Trailers of Up To 16 Tonnes Gross Mass and Transport Tractor

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3 MATERIALS

3.1 The jaw shall be made from a material of quality not less than Grade C20 of **IS 1875: 1992** for steel in normalized condition for the forged jaw and Grade 23-45 of **IS 1030: 1998** for the cast jaw.

3.2 The towing pin shall be made from a material of quality not less than Grade 35Mn2Mo 28 steel of **IS 5517: 1993**.

4 DIMENSIONS

4.1 Dimensions shall be as shown in Fig. 1. The dimensions marked with asterisk (*) in Fig. 1 are essential for interchangeability, other dimensions apply to the forged jaw and are for guidance only.

NOTE — The dimensions specified for the forged jaws have been calculated on the basis of the total yield strength being not less than two-thirds the gross mass being towed. It is necessary that any other part not covered by this standard, connecting the coupling to the towing tractor shall have a similar strength.

5 DESIGN

5.1 An efficient safety locking device shall be provided as indicated in Fig. 1 to prevent accidental extraction of the towing pin from the jaw.

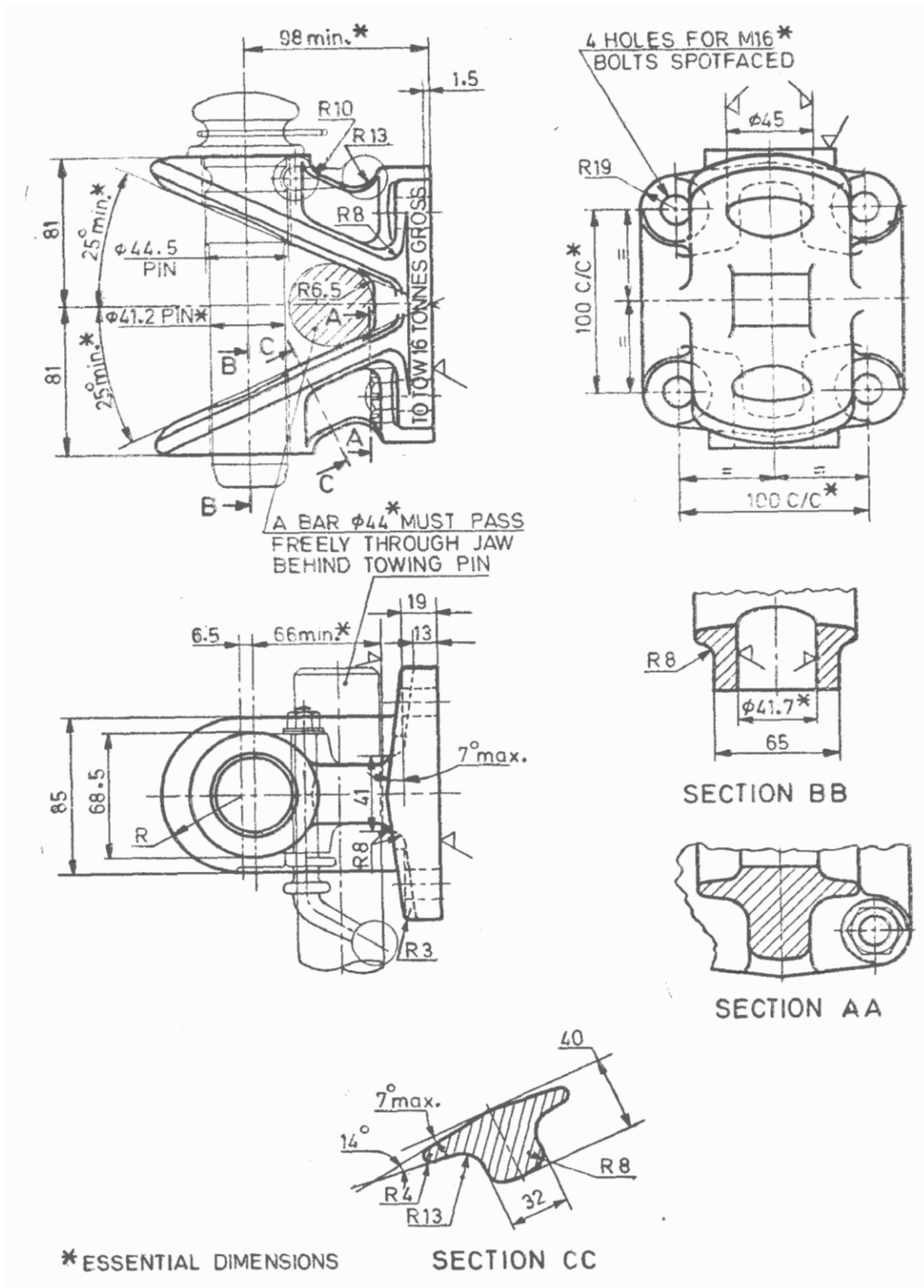
5.2 The jaw shall be so designed that a bar of 44 mm diameter shall pass freely between the pin and the inside face of the jaw (*see* Fig. 1).

6 MOUNTING

6.1 The jaw shall be mounted with four bolts of 16 mm diameter conforming to designation M 16 x 1'5 (P) of **IS 1364 (Part 1) : 2018** at 100'0 x 100'0 mm centres. This renders it interchangeable in mounting with hooks specified in IS: 8299-**XXXX¹⁾** and IS: 8300-**XXXX¹⁾**.

6.2 The nuts shall be secured either by peening the end of the bolt or by fitting a positive locking device such as a safe locking nut or a slotted nut and split pin.

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All dimensions in millimetres.

Fig. 1 Towing Jaw for Trailers Up To 16 Tonnes

7 MARKING

7.1 The following wording, in clear lettering 10 mm high, raised or stamped, shall be marked on each towing jaw:

- a) 'TO TOW 16 TONNES GROSS' on one side; and
- b) IS: 8297-XXXX¹⁾ on the other side.

7.2 In addition, the towing jaws shall also be marked at the appropriate place, the following information:

- a) Name or trade-mark of the manufacturer;
- b) Date or year of manufacture; and
- c) The country of manufacture.

7.3 BIS Certification Marking

Each towing jaws may also be marked with the Standard Mark.

7.3.1 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.

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