

Australian Standard<sup>®</sup>

---

**Information processing**

**DIMENSIONS OF HUBS AND  
REELS FOR MAGNETIC TAPE  
FOR INSTRUMENTATION  
INTERCHANGE**

**NOTE**

AS 1073, Part 2 REVISED  
AND PUBLISHED  
SEPARATELY IN 1988.

---

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Banks Automation Committee  
Australian Bureau of Statistics  
Australian Computer Users Association  
Australian Public Service Board  
CSIRO, Division of Computing Research  
Department of Defence  
Life Offices Association for Australasia  
Manufacturers of data processing equipment  
National Library of Australia  
Office Equipment Industry Association of Australia  
Qantas Airways Limited  
Telecom Australia  
Universities and Colleges

---

This standard, prepared by Committee MS/20, Computers and Information Processing, was approved on behalf of the Council of the Standards Association of Australia on 19 February 1979, and was published on 1 June 1979.

**Review of Australian Standards.** To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore for Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

---

Part 3 of this standard was issued in draft form for public review as DR 76078.

Australian Standard<sup>®</sup>

---

**Information processing**

**DIMENSIONS OF HUBS AND  
REELS FOR MAGNETIC TAPE  
FOR INSTRUMENTATION  
INTERCHANGE**

**Part 1—General purpose hubs and reels, with  
76 mm (3 in) centre hole**

**Part 2—Precision reels**

**Part 3—General purpose reels with 8 mm (5/16 in)  
centre hole**

---

|                       |      |
|-----------------------|------|
| First published ..... | 1973 |
| Revised .....         | 1979 |
| Reprinted .....       | 1983 |

PUBLISHED BY STANDARDS AUSTRALIA  
(STANDARDS ASSOCIATION OF AUSTRALIA)  
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 5601 3

## PREFACE

This standard was prepared by the Association's Committee on Computers and Information Processing. It is identical with and has been reproduced from International standards ISO 1858, 1860 and 3802, drawn up by ISO/TC 97, Computers and Information Processing. Parts 1 and 2 constitute a revision of AS 1073—1973.

The purpose of this standard is to specify standard dimensions for hubs and reels designed for use with magnetic tape in interchange instrumentation applications.

AS 1073—1973 covered hubs and reels with a 76 mm centre hole and was technically identical with two ISO Recommendations, R 1858 and R 1860. These recommendations have since been revised and Parts 1 and 2 herein have been revised accordingly to take account of the new ISO standards, ISO 1858, General Purpose Hubs and Reels, with 76 mm (3 in) Centre Hole, for Magnetic Tape used in Interchange Instrumentation Applications; and ISO 1860, Precision Reels for Magnetic Tapes for Interchange Instrumentation Applications, respectively.

At the same time a new Part 3 has been added to include requirements for general purpose reels with 8 mm centre holes. This part is identical with ISO 3802, General Purpose Reels with 8 mm (5/16 in) Centre Hole for Magnetic Tape for Interchange Instrumentation Applications.

Numeric values in the SI system in this standard may have been rounded off in conversion from imperial measurements, and are therefore consistent with, but not exactly equal to, the values in the original design which were given using the imperial system. In use, the two should be neither intermixed nor reconciled. However following the practice in the International standard, imperial values have been given in parentheses.

For the purpose of this Australian standard, the text of the ISO standards used herein should be modified as follows:

- (a) *Terminology*: The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.
- (b) *Decimal comma*: The decimal point should replace the decimal comma wherever it appears.
- (c) *Cross-references*: The references to International Standards should be replaced by references to Australian standards as follows:

| <i>Reference to International Standard</i>  | <i>Appropriate Australian Standard</i>   |
|---|--|
| ISO 1859, Information Processing—Unrecorded magnetic tapes for interchange instrumentation applications—General dimensional requirements. | AS 1082.1, Unrecorded magnetic tapes for instrumentation applications, general and dimensional requirements. |

## © Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

## CONTENTS

|  | <i>Page</i> |
|--|-------------|
| AS 1073, PART 3—GENERAL PURPOSE REELS WITH 8 mm (5/16 in)<br>CENTRE HOLE         |             |
| 1 Scope and Field of Application . . . . .                                       | 5           |
| 2 Hub and Reel Dimensions . . . . .  | 5           |
| AS 1073, PART 2—PRECISION REELS<br>Revised and published separately in 1988      |             |
| AS 1073, PART 1—GENERAL PURPOSE HUBS AND REELS, WITH<br>76 mm (3 in) CENTRE HOLE |             |
| 1 Scope and Field of Application . . . . .                                       | 13          |
| 2 Hub and Reel Dimensions . . . . .  | 13          |
| 3 Material . . . . .   | 13          |

(PAGE 4 IN THE HARD COPY IS BLANK)

## STANDARDS ASSOCIATION OF AUSTRALIA

# Information processing—General purpose hubs and reels, with 76 mm (3 in) centre hole, for magnetic tape used in interchange instrumentation applications

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the dimensions of general purpose hubs and reels, with 76 mm (3 in) centre hole, designed for use with magnetic tape in interchange instrumentation applications.

## 2 HUB AND REEL DIMENSIONS

**2.1** The dimensions of the hubs and reels shall be as specified in figures 1 and 2 and tables 1 and 2.

**2.2** Reels are to be so constructed that any profile section taken through the centre axis of the reel will fall within the cross-hatched envelope of figure 1. This includes lateral runout of the flanges.

**2.2.1** Bosses, ribs, or raised designs are permitted on the outside surfaces of the flanges provided that they do not extend beyond the cross-hatched envelope when the reel is rotated on its centre axis.

**2.2.2** The surfaces of the flanges between diameters  $L$  and  $L_1$  shall lie between the planes defined by dimensions  $H$  and  $J$  (see figure 1).

**2.2.3** Between diameters  $A$  and  $L$ , the outside surfaces of the reel, including any flange fastening devices employed,

shall not extend beyond the surfaces defined by dimension  $w$  (see figure 1).

**2.2.4** The reel surfaces defined by dimension  $M$ , or the hub surfaces defined by dimensions  $S$  (see figure 2), shall be parallel within 0,002 5 mm per millimetre (or 0.002 5 in per inch) of diameter.

**2.3** Flanges may have holes of convenient size, shape, and location to facilitate threading, but neither the holes nor optional threading slots shown in figure 2 are required by this International Standard.

**2.4** Reels and hubs shall be symmetrical to permit mounting from either side.

**2.5** The outside cylindrical surface of the hub (diameter  $C$ ) shall be concentric with the centre hole (diameter  $A$ ) within 0,25 mm (0.010 in) TIR, i.e. the deviation of the centre of diameter  $C$  with respect to the centre of diameter  $A$  shall not exceed 0,125 mm (0.005 in).

**2.6** The outside diameter of the flanges (diameter  $B$ ) shall be concentric with the centre hole of the hub (diameter  $A$ ) within 1,3 mm (0.050 in) TIR, i.e. the deviation of the centre of diameter  $B$  with respect to the centre of diameter  $A$  shall not exceed 0,65 mm (0.026 in).