B/G

Corrigenda - September, 1969.

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WITHDRAWN

JULY 1996

AS B66—1969
UDC 621.833.38

Australian Standard B66 – 1969

WORM GEARING

(INCH SERIES)

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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Associated Chambers of Commerce of Australia
Associated Chambers of Manufactures of Australia
Australian and New Zealand Railway Conferences
Bureau of Steel Manufacturers
Department of Defence
Department of Supply
Federal Chamber of Automotive Industries
Metal Trades Employers Association
National Standards Laboratory, CSIRO
Universities

This standard, prepared by Committee ME/11, Gears and Splines, was approved on behalf of the Council of the Standards Association of Australia on 24 March 1969.

To keep abreast of progress in industry, Australian Standards are regularly reviewed. Suggestions for improvement to published standards are welcomed; these should be addressed to the Headquarters of the Association, Sydney.

This standard was issued in draft form for public review as Docs 813 *and* 1273.

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September 1969

STANDARDS ASSOCIATION OF AUSTRALIA

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CORRIGENDA

to

AS B66 — 1969

WORM GEARING

(Inch Series)

Pages 21 to 23. **Table 4.**

Delete γ_b in the heading of 8th column of Table 4 and *substitute* γ_{b1}.

Page 27. **Clause 11, Efficiency of Lubrication.**

Delete "Of" in the title of Clause 11 and *substitute* "And".

Pages 29 and 30.

Delete the symbol $\surd$ shown twice in Fig. 8 and four times in Fig. 9 and *substitute* $\sqrt{}$.

NOTE: In Fig. 8 the symbol appears in the "Surface Texture" box in the title block, and on the left-hand side of the drawing of the wormwheel.

In Fig. 9 the symbol appears in the "Surface Texture" box in the title block, on the outside diameter of the drawing of the worm, and once on each of the diameters of the journals of the drawing of the worm.

Page 42. **Example B4.**

Delete "A4.3" from end of 10th line and *substitute* "A4.5".

Delete existing equation for "F_e =" *and substitute:*

$$F_e = 2m\sqrt{(q + 1)} = 2.41$$

Page 43. **Example B4.**

Delete "3.35" in the equation beginning "d_2 =" (9th line) and *substitute* "3.25".

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24 OCT 1969

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AUSTRALIAN STANDARD

WORM GEARING
(INCH SERIES)

AS B66 — 1969

First issued (endorsement of BS 721:1937) ..	1940
Revised	1969

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PREFACE

This standard has been prepared as a revision of the 1940 edition of AS B66, which was an endorsement of BS 721:1937 without amendment.

The British Standards Institution revised BS 721 in 1963. The new edition differs from the previous edition mainly in the following details:

a. A method of design is given for worm gears of most types and sizes.

b. The form of basic rack is now specified and is similar to that given in ISO Recommendation R53-1957.

c. A fixed number of preferred centre distances, ratios, axial modules and diameter factors (d_1/m) is recommended with a view to minimizing the number of tools required. A list of second choice centre distances is also given. BS 721 also illustrates the method of preparing designs based on existing wormwheel hobs designated by axial pitches as well as designs of worms produced by standard diametral pitch cutting tools corresponding to the normal pitch of the worm.

d. A system of depth modification applicable to worms of high lead angle is given to ensure adequate crest width of the hob and to avoid the undesirable condition of the base diameter being greater than the diameter of the worm clearance cylinder.

e. Rules are given for the selection of z_1, z_2 and q, and standard modules are divided into 'first choice' and 'second choice' to facilitate close approximation to desired condition; limiting values are given for variation in centre distance with the same object.

f. The formulae for allowable loads have been revised, the permissible load for strength having been greatly increased. These are now given in an appendix to the standard.

Consideration was given to the endorsement of BS 721:1963 as a revised edition of AS B66, but comment received by the Association indicated that considerable amendment would be necessary. Accordingly the Association's Committee on Gears and Splines felt that a self-contained Australian standard should be prepared. This standard differs from BS 721 mainly in the following details:

i. Allowance has been made for the continued use of milled helicoid worm gearing.

ii. The range of gear ratio has been extended beyond 70:1 to include additional ratio of 80:1 and 100:1.

iii. Preferred and second choice centre distances have been completely revised, reducing the total number of standard centre distances for individual worm gears from 33 to 19. Standard centre distances for axle transmission worm gears have not been altered.

iv. The method of selecting the number of teeth in wormwheels has been revised to allow the use of $z_2 = uz_1$ in certain cases.

v. Symbols used have been altered to conform to ISO Recommendation R701-1968.

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