

Australian Standard™

**Internal combustion engines—
Performance**

**Part 4: Engines for land, rail-traction
and marine use—Speed governing**

[ISO title: Reciprocating internal combustion engines—Performance,
Part 4: Speed governing]

This Australian Standard was prepared by Committee ME/20, Internal Combustion Engines. It was approved on behalf of the Council of Standards Australia on 30 June 1999 and published on 5 August 1999.

The following interests are represented on Committee ME/20:

Australian Automobile Association
Australian Automotive Aftermarket Association
Australian Institute of Petroleum
Australian Industry Group
Construction & Mining Equipment Association of Australia
Electricity Supply Association of Australia
Environment Australia
Environment Protection Authority, N.S.W.
Federation of Automotive Products Manufacturers
Institution of Engineers Australia
University of Melbourne
Victoria Automobile Chamber of Commerce

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 that 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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.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.

This Standard was issued in draft form for comment as DR 99061.

© 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.

Australian Standard™

**Internal combustion engines—
Performance**

**Part 4: Engines for land, rail-traction
and marine use—Speed governing**

Originated as part of AS B215—1966.
Final edition AS 2789.4—1985.
Revised and redesignated AS 4594.4—1999.

Published by Standards Australia
(Standards Association of Australia)
1 The Crescent, Homebush, NSW 2140

ISBN 0 7337 2846 4

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/20, Internal Combustion Engines to supersede AS 2789.4—1985. It is identical with and has been reproduced from ISO 3046-4:1995, *Reciprocating internal combustion engines—Performance, Part 4: Speed governing*.

This Standard is the result of a consensus among the representatives on the Joint Committee to produce it as an Australian Standard.

The Standards in the series are as follows:

AS

4594	Internal combustion engines—Performance
4594.0	Part 0: Application
4594.1	Part 1: Standard reference conditions, declarations of power, fuel and lubricating oil consumptions, and test methods
4594.3	Part 3: Engines for land, rail-traction and marine use—Test measurements
4594.4	Part 4: Engines for land, rail-traction and marine use—Speed governing (this Standard)
4594.5	Part 5: Engines for land, rail-traction and marine use—Torsional vibrations
4594.6	Part 6: Engines for land, rail-traction and marine use—Overspeed protection
4594.7	Part 7: Engines for land, rail-traction and marine use—Codes for engine power
4594.8	Part 8: Engines for road vehicle use—Test code, net power
4594.9	Part 9: Engines for road vehicle use—Test code, gross power
4594.10	Part 10: Engines for agricultural tractor and machine use—Test code, net power
4594.11	Part 11: Engines for motorcycle use—Test code, net power

An application Standard, AS 4594.0, has been produced to be read in conjunction with these Standards to indicate inconsistencies within the adopted ISO Standards.

As this Standard is reproduced from an International Standard the following applies:

- Terminology* The words ‘this Australian Standard’ should replace the words ‘this part of ISO 3046’ whenever they appear.
- Decimal comma* The decimal point should replace the decimal comma wherever it appears.
- Cross-references* The reference to International Standards should be replaced by references to Australian Standards as follows:

<i>Reference to International Standard</i>	<i>Australia Standard</i>
ISO	AS
7967	—
	Reciprocating internal combination engines—Vocabulary of components and systems
7967-7	Part 7: Governing systems

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

AUSTRALIAN STANDARD

Internal combustion engines—Performance

Part 4:

Engines for land, rail-traction and marine use—Speed governing

1 Scope

This part of ISO 3046 establishes a classification for the requirements and parameters of speed-governing systems and specifies terms and definitions of typical engine speeds for reciprocating internal combustion (RIC) engines. Where necessary, individual requirements may be given for particular engine applications.

This part of ISO 3046 applies to RIC engines for land, rail-traction and marine use, excluding engines used to propel road construction and earth-moving machines, agricultural and industrial types of tractors, road vehicles and aircraft. Also excluded are self-governing engines and those engines requiring only maximum speed or maximum fuel delivery limitation.

This part of ISO 3046 defines requirements for compression-ignition oil engines (diesel engines). For spark-ignition engines and dual fuel engines special requirements may apply.

NOTES

1 Performance and parameters for speed-governing systems applied in RIC engine driven generating sets are specified in parts 2 and 5 of ISO 8528.

2 Terms and definitions of typical engine speeds in connection with overspeed protection devices are specified in ISO 3046-6.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 3046. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 3046 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7967-7:—¹⁾, *Reciprocating internal combustion engines — Vocabulary of components and systems — Part 7: Governing systems.*

¹⁾ To be published.