

Australian/New Zealand Standard™

**Diesel engine systems for underground  
coal mines**

**Part 3: Maintenance**



### **AS/NZS 3584.3:2012**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-018, Mining Equipment. It was approved on behalf of the Council of Standards Australia on 17 January 2012 and on behalf of the Council of Standards New Zealand on 20 October 2011.

This Standard was published on 31 January 2012.

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The following are represented on Committee ME-018:

Australasian Institute of Mining and Metallurgy  
Australian Chamber of Commerce and Industry  
Australian Industry Group  
Construction and Mining Equipment Industry Group  
Department of Industry and Investment NSW  
Department of Labour New Zealand  
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# Australian/New Zealand Standard™

## **Diesel engine systems for underground coal mines**

### **Part 3: Maintenance**

First published as AS/NZS 3584.3:2005.  
Second edition 2012.

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Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140

ISBN 978 1 74342 018 8

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-018, Mining Equipment, to supersede AS/NZS 3584.3:2005.

This Standard is part of a series on diesel engine systems for underground coal mines, as follows:

### AS/NZS

3584 Diesel engine systems for underground coal mines

3584.1 Part 1: Fire protected—Heavy duty

3584.2 Part 2: Explosion protected

3584.3 Part 3: Maintenance (this Standard)

The objective of this Standard is to control risks to the health and safety of people from the use of diesel engine systems in underground coal mines by providing requirements and guidance for maintaining the safety and integrity of diesel engine systems.

The objective of this revision is to respond to numerous incidents in underground coal mines where maintenance has been a contributing factor, by providing further guidance for additional requirements and maintenance processes.

Major changes to this revision are as follows:

- (a) Additional requirements for establishing maintenance management systems.
- (b) Additional requirements for maintenance procedures.
- (c) New section covering marking and traceability.
- (d) New option for overhaul, Code D examination or repairs to be done in recognized service facilities (see Appendix A).
- (e) New guidance for competence and training (see Appendix B).
- (f) Additional recommendations for coded maintenance (see Appendix E).

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard****Diesel engine systems for underground coal mines****Part 3: Maintenance**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies requirements and recommendations for examining, servicing, maintaining, repairing, overhauling, modifying and testing diesel engine systems including those that comply with AS/NZS 3584.1 and AS/NZS 3584.2, for use in underground coal mines to ensure diesel engine systems remain safe to use (i.e. in an explosion-protected or fire-protected condition) over their life cycle.

NOTE: Appendices in this Standard cover the following:

- (a) Recognized service facilities (see Appendix A).
- (b) Training and competencies (see Appendix B).
- (c) Requirements for hydrostatic testing (see Appendix C).
- (d) Undiluted exhaust emission testing (see Appendix D).
- (e) Examples of coded maintenance (see Appendix E).

**1.2 APPLICATION**

This Standard is intended for use by all service facilities and personnel engaged in examining, servicing, maintaining, repairing, overhauling, modifying and testing diesel engine systems, including the following:

- (a) Manufacturers undertaking examining, servicing, maintaining, repairing, overhauling, modifying and testing of diesel engine systems originally manufactured by themselves or others.
- (b) Service organizations undertaking examining, servicing, maintaining, overhauling, modifying and testing diesel engine systems manufactured by others.
- (c) The users of diesel engine systems undertaking examining, servicing, maintaining, overhauling, modifying and testing.
- (d) Agents and importers of diesel engine systems undertaking examining, servicing, maintaining, overhauling, modifying and testing.

**1.3 NORMATIVE REFERENCES**

The following are the normative documents referenced in this Standard:

NOTE: Documents referenced for informative purposes are listed in the bibliography.

AS	
1014	Gauging of metric screw threads
1554	Structural steel welding (all parts)
3501	Parallel screw threads of Whitworth form (BSW and BSF) and associated gauges and gauging practice