Australian/New Zealand Standard™

Diesel engine systems for underground coal mines

Part 2: Explosion protected





#### AS/NZS 3584.2:2003

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 23 May 2003 and on behalf of the Council of Standards New Zealand on 22 May 2003. It was published on 15 July 2003.

The following are represented on Committee ME-018:

Australasian Institute of Mining and Metallurgy
Australian Chamber of Commerce and Industry
Australian Coal Association
Bureau of Steel Manufacturers of Australia
Chamber of Minerals and Energy of Western Australia
Department of Infrastructure, Energy and Resources (Tasmania)
Department of Labour, New Zealand
Department of Mineral Resources, N.S.W.
Department of Minerals and Energy, W.A.
Department of Mines and Energy (Qld)
Department of Natural Resources and Environment, Vic.
Institution of Mining Engineers, Australia
Minerals Council of Australia
South Australian Chamber of Mines and Energy

### Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at <a href="https://www.standards.com.au">www.standards.com.au</a> or Standards New Zealand web site at <a href="https://www.standards.co.nz">www.standards.co.nz</a> and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

AS/NZS 3584.2:2003

# Australian/New Zealand Standard™

# Diesel engine systems for underground coal mines

Part 2: Explosion protected

Originated as AS 3584—1988.
Previous edition AS 3584—1991.
Jointly revised and redesignated as AS/NZS 3584.2:2003.

#### **COPYRIGHT**

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

#### **PREFACE**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-018, Mining Equipment, to supersede AS 3584—1991, *Diesel engine systems for underground coal mines*.

The objective of this Standard is to promote the safety of explosion-protected diesel engine systems that are used underground in coal mines.

This Standard is one of the following series of Standards:

#### AS/NZS

3584 Diesel engine systems for underground coal mines

Part 1: Fire protected (being developed)

3584.2 Part 2: Explosion protected (this Standard)

Part 3: Maintenance (being developed)

This edition allows for the implementation of new technology in diesel engine systems, including the use of dry exhaust systems, limiting the emission of diesel aerosol particulates and generally reducing the emission of pollutants. New measures have been included to provide a greater assurance of safety by preventing the propagation of an internal explosion. Its emphasis is to facilitate the implementation of new technology resulting in the increased operational safety of diesel engine systems.

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.

## CONTENTS

		Page
SECTIO	ON 1 SCOPE AND GENERAL	
1.1	SCOPE	4
1.2	APPLICATION	
1.3	REFERENCED DOCUMENTS	
1.4	DEFINITIONS	
SECTIO	ON 2 DESIGN AND CONSTRUCTION	
2.1	ENGINE TYPES	10
2.2	CONDITION MONITORING	
2.3	SURFACE TEMPERATURE	
2.4	MATERIALS	
2.5	FLEXIBLE METALLIC PIPES	
2.6	JOINTS	
2.7	TRANSMISSION BELTS	
2.8	ENGINE BREATHER	
2.9	STARTING AIDS	
	FUEL SYSTEMS.	
	AIR INLET SYSTEMS	
	AIR COMPRESSORS	
2.13		
	ENGINE SHUTDOWN SYSTEMS	
	EXHAUST SYSTEMS	
	ELECTRICAL SYSTEMS	
SECTIO	ON 3 MARKING	
3.1	COMPLIANCE PLATE	25
3.2	ENGINE SPECIFICATION PLATE	
3.3	WARNING LABELS	
SECTIO	ON 4 TESTING	
4.1	TYPE TESTING	29
4.2	MODIFIED COMPONENTS	29
4.3	INSTALLED TESTS BY THE DIESEL ENGINE SYSTEM MANUFACTURER	30
4.4	ROUTINE COMMISSIONING TESTS BY THE MANUFACTURER	30
4.5	USE OF LOW EMISSION FUEL	31
4.6	MANAGEMENT SYSTEM	31
SECTIO	ON 5 DOCUMENTATION	
5.1	DOCUMENTATION TO BE SUPPLIED	32
	GENERAL ARRANGEMENT DRAWINGS	33



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation