



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 02ATEX9329U** Issue: **4**

4 Component: **The WR Ranges of Diesel Engine Spark Arrestors**

5 Applicant: **Eminox Limited**

6 Address: **Miller Road  
Corringham Road Industrial Estate  
Gainsborough  
Lincolnshire DN21 1QB  
UK**

7 This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 1834-1:2000          EN 1834-2:2000          EN 1834-3:2000          EN 13463-1:2002

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any special conditions for safe use are listed in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:



II 2G  
EN 1834:2000

Project Number    31550

A C Smith  
Certification Manager

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 02ATEX9329U  
Issue 4

#### 13 DESCRIPTION OF COMPONENT

The WR Range of Diesel Engine Spark Arrestors are designed for fitting into, and suppressing sparks emitted by, a diesel engine exhaust system. Each comprises a stainless steel, cylindrical 'can' with inlet and outlet pipe stubs. The can contains a serrated and louvered inner tube welded to it.

Each device in the range is designed for specific engine configurations with a maximum velocity at the spark arrestor element inlet of 75 m/s. Can and arrestor tube lengths increase in proportion to maintain the design inlet flow, the type designations being defined in drawing SK1095.

#### Design Options

- § The inlet and outlet stubs may be end or side fitting.
- § Single or twin inlet pipe stubs.
- § A silencer section may be added after the arrestor section.
- § Twin arrestor arrangement with common inlet and outlet stubs.

**Variation 1:** This variation introduced the following changes:

- i. The introduction of a new model, Type WRDN.
- ii. Minor drawing modifications were recognised; these modifications were administrative and do not affect the aspects of the product that are relevant to explosion safety.

**Variation 2:** This variation introduced the following changes:

- i. Additional sizes and configurations that conform to the existing methodology were introduced.

**Variation 3:** This variation introduced the following changes:

- i. The lower velocity rating was removed
- ii. The introduction of new model Types WR9J and WRHN.
- iii. The recognition of modifications to the specification of the existing Type WR06.
- iv. Minor text changes were recognised.

**Variation 4:** This variation introduced the following change:

- i. The recognition of a change in the applicants address:

From:  
North Warren Road  
Gainsborough  
Lincolnshire, DN21 2TU  
UK

To:  
Miller Road  
Corringham Road Industrial Estate  
Gainsborough  
Lincolnshire DN21 1QB  
UK



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Sira 02ATEX9329U  
Issue 4

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	1 April 2003	R53M8779A	The release of prime certificate.
1	2 June 2006	R51A15191A	The introduction of Variation 1.
2	11 July 2007	R59M16515A	This Issue covers the following changes: <ul style="list-style-type: none"><li>All previously issued certification was rationalised into a single certificate, Issue 2, Issues 0 and 1 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.</li><li>In line with current ideology, the spark arrestors are to be recognised as components and not protective systems, in consequence the products are marked with <math>\square</math> I <math>\square</math> G and the certificate number becomes Sira 02ATEX9329U.</li><li>The introduction of Variation 2.</li></ul>
3	3 July 2008	R59M18025A	The introduction of Variation 3.
4	29 July 2013	R31550A/00	The introduction of Variation 4.

#### 15 SPECIAL CONDITIONS FOR SAFE USE

- 15.1 The suitability of the device for its intended function, including temperature assessment, shall be established prior to commissioning the assembled engine; this shall be done in accordance with the following as appropriate to the final application:

EN 1834-1:2000, clause 5.3

EN 1834-2:2000, clause 5.2

EN 1834-3:2000, clause 5.1

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

#### 17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

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# Certificate Annexe

Certificate Number: Sira 02ATEX9329U  
Component: The WR and WRDN Ranges of Diesel Engine Spark Arrestors  
Applicant: Eminox Limited



## Issue 0

Drawing No.	Sheet	Rev.	Date	Description
SK 1095	1 to 3	A	23 Jan 03	Spark Arrestor Arrangement
QM 042	1 of 1	D	17 Feb 03	Label
QM 514	1 of 1	B	18 Feb 03	Label
QM 515	1 of 1	B	19 Feb 03	Label

## Issue 1

Drawing No.	Sheet	Rev.	Date (Sira stamp)	Description
SK 1095	1 to 3	C	23 Jan 03	Spark Arrestor Arrangement
QM 042	1 of 1	E	17 Feb 03	Label
QM 514	1 of 1	C	18 Feb 03	Label
QM 515	1 of 1	D	19 Feb 03	Label

## Issue 2

Drawing No.	Sheet	Rev.	Date (Sira stamp)	Description
SK 1095	1 to 3	C/02	31 May 07	Spark Arrestor Arrangement
QM 042	1 of 1	F/02	26 Jun 07	Label
QM 514	1 of 1	E	16 Jul 07	Label
QM 515	1 of 1	F	16 Jul 07	Label

## Issue 3

Drawing No.	Sheet	Rev.	Date	Description
SK 1095	1 to 3	C/03	22 Feb 08	Spark Arrestor Arrangement

## Issue 4

Drawing No.	Sheets	Rev.	Date(Sira stamp)	Title
QM042	1 of 1	G/03	29 Jul 13	Spark Arrestor Label
QM 514	1 of 1	F/03	29 Jul 13	Pyroban Label
QM 515	1 of 1	G/03	29 Jul 13	Flametec Label

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