DNV·GL

Certificate No:
TAM00000G5

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Spark Arrestor

with type designation(s)
Type 1, 1A, 2, 2A, 3 and OPA, HPA, SPA, BSA 25, BSA 35.

Issued to
Universal Silencer Europe Ltd
Hinckley Leicestershire, United Kingdom

is found to comply with
DNV's Offshore Standard DNV-OS-D101 "Marine and Machinery Systems and Equipment"
Det Norske Veritas' Rules for Classification of Ships

Application :

Spark arrestor intended for use in the exhaust line of diesel engines, boilers and equipment containing sources of ignition installed onboard ships or offshore units.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2017-03-15**
This Certificate is valid until **2017-12-31**.
DNV GL local station: **Manchester**

Approval Engineer: **Amir Dzaferi**

for **DNV GL**

Oddvar Deinboll
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

The spark arrestors are of cyclone/centrifugal design and form a part of manufacturers exhaust silencers types.
Design:

Type 1:	End entry and exit, external dust box
Type 1A:	End entry and exit, internal dust box
Type 2:	Offset side entry, exit through opposite end, external dust box
Type 2A:	Offset side entry, exit through opposite end, internal dust box
Type 3:	Offset side entry, exit through same end, external dust box

Alternative places of production

- 2 JCP a.s, Steti, Czech Republic
- Bell Steel Fabrications Ltd, Cricklade, United Kingdom
- Blagg & Johnson Ltd., Newark, United Kingdom
- Teknoflow Green Equipments PVT Ltd., Nashik, India
- Kerei Engineering, Singapore

Application/Limitation

Spark arrestor intended for use in the exhaust line of diesel engines, boilers and equipment containing sources of ignition installed onboard ships or offshore units.

Tests carried out

Type 1 etc:
Test of discharge of sparks acc. to SAE J 342, Jan. 1991 (Large Size Engines) and SAE J997 May 1995 (Test Carbon), test carried out 28th of May to 2nd of June 1997.
Type OPA etc.:
DNV Report dated 91-06-21 (Test requirement equivalent to EN-1834-1)

Marking of product

The product to be marked with manufacturer’s name or trademark and type number identification

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

In cases where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore Periodical Assessment shall be carried out randomly at these companies.

Other conditions

DNV GL Product certificate is not required.

END OF CERTIFICATE