

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Spark Arrestor**with type designation(s)
VKV size 1" to 48"

Issued to

TIO B.V.**Krimpen aan den IJssel Zuid-Holland, Netherlands**

is found to comply with

DNV GL rules for classification – Ships**DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition July 2015****Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2017-12-18**This Certificate is valid until **2018-12-31**.for **DNV GL**DNV GL local station: **Rotterdam**Approval Engineer: **Amir Dzaferi**

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.



Job Id: **262.1-008975-3**
Certificate No: **TAM00000SF**

Product description

Spark Arrestor
Type VKV size 1" to 48"

Application/Limitation

Spark arrester 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

Test report from Delft Technical university dated 20 May 1955.

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