DNV·GL

Certificate No:
TAP00001B2

TYPE EXAMINATION CERTIFICATE

This is to certify:

That the Pipe System with Couplings

with type designation(s)
Exhaust gas piping system, type DW-Power (DW-PW)

Issued to
Jeremias GmbH
Wassertrüdingen, Germany

is found to comply with
EN 1856-1:2009 Chimneys – Requirements for metal chimneys – Part 1: System chimney products
EN 1856-2:2009 Chimneys – Requirements for metal chimneys – Part 2: Metal flue liners and connecting flue pipes
EN 13216-1:2004 Chimneys – Test methods for system chimneys – Part 1: General test methods

Application :

Products examined by this certificate are accepted for installation on all vessels classed by DNV GL.

Temperature range:	**up to 600 °C**
Max. pressure:	**5000 Pa**
Design:	**see certificate**

Issued at **Hamburg** on **2018-05-22**

This Certificate is valid until **2023-05-21**.

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Guido Friederich**

Olaf Drews
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 Examination Certificate and not to the approval of equipment/systems installed.

Product description

Exhaust gas piping system DW-Power consisting of double walled pipes.

Technical data:

Materials	Inner pipe	ASTM SA 312 TP 304H, 316L, 316 Ti / EN 1.4948, 1.4404, 1.4571
	Outer pipe	ASTM SA 312 TP 304, 316L, 316 Ti / EN 1.4301, 1.4404, 1.4571
	Insulation	Type approved pre-formed mineral fibre, Minimum density 120kg/m^3, Minimum thickness 57,5 mm
	Sealing materials	Asplit (up to 600 °C)
Size range		DN 100 to DN 500
Pipe wall thickness		0,5 mm to 1,0 mm inside /outside
Maximum Allowable Working Temp. (MAWT)		up to 600°C
Maximum Allowable Working Pressure (MAWP)		5000 Pa

Application/Limitation

The exhaust gas piping systems type DW-PW is approved for the use as exhaust gas lines on boilers and diesel engines (downstream to turbo chargers)

Note
For penetration of ship's fire divisions DNV GL type approved pipe penetrations shall be used.

The selection of the Exhaust Gas System for the corresponding application and correct installation shall be in accordance with the manufacturer's instructions.

Type Examination documentation

Tests carried out

- Wind load test
- Gas tightness test
- Mechanical strength and stability test
- Test and evaluation of a system chimney according EN 1856-1, consisting of the following tests:
  - Mechanical strength
  - Thermal performance at heat stress conditons
  - Gas tightness
  - Corrosion resistance
  - Thermal resistance

Place of Production

Jeremias GmbH
Opfenrieder Straße 11 – 14
D-91717 Wassertrüdingen

Marking of product

Each device shall bear legible and durable marking on the body or on a plate fixed securely to the body according to DNV GL Instruction sheet on the proper use of DNV GL -Maritime certification marks

- Manufacturer's name and mark
- Nominal diameter
- DNV GL type Examination Certificate number

Certificate Retention Survey

A condition for retention of the Type Examination Certificate in its validity period is that periodical assessments are successfully carried out.
The objective of the periodical assessment is to verify that the conditions for the type approval have not been altered.

The main scope of the periodical assessment will normally include:
- Verification of the TA applicant's production and quality system w.r.t ensuring continued consistent production of the type approved products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the TA documentation and that this is still used as a basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking

END OF CERTIFICATE