TYPE APPROVAL CERTIFICATE

DNV-GL

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.

45 363 - 16 HH

Company

Niezgodka GmbH

Bargkoppelweg 73

22145 Hamburg, GERMANY

Product Description

Safety Valves

Type

30 / 31 BG I

[30.1; 30.2; 30.7] / [31.1; 31.2; 31.7]

Environmental Category

Technical Data / Range of Application Safety valves for relief of steam and gas and non boiling liquids

	Working temperature	Set pressure
Type 30.1 and 31.1	-10°C to +280°C	0,1 bar to 40 bar
Type 30.2 and 31.2	-60°C to +280°C	0,1 bar to 40 bar
Type 30.7 and 31.7	-200°C to +280°C	0,1 bar to 40 bar

Nominal Dimensions, Nominal pressures Type 30 BG I

DN Inlet / DN Outlet	PN [DIN / ANSI]	Coefficients
DN 15 / DN 15	16 -63 / 150-600	0,45 (D/G); 0,32 (F) *
DN 20 / DN 20	16 -63 / 150-600	0,45 (D/G); 0,32 (F) *
DN 25 / DN 25	16 -63 / 150-600	0,38 (D/G); 0,29 (F) *
DN 25 / DN 25	16 -63 / 150-600	0,38 (D/G); 0,22 (F) *

Nominal Dimensions, Nominal pressures Type 31 BG I

PN [DIN / ANSI]	Coefficients
16 -63 / 150-600	0,45 (D/G); 0,32 (F) *
16 -63 / 150-600	0,38 (D/G); 0,29 (F) *
16 -63 / 150-600	0,28 (D/G); 0,22 (F) *
	16 -63 / 150-600 16 -63 / 150-600

^{* [}D/G: Service for steam and gas; F: Service for non boiling liquid]

Test Standard

DNV GL Rules CP-0186 - Valves

GL VI-7-8 Test Requirements for Components and Systems of Mechanical

Engineering and Offshore Technology

Documents

Manufacturer's Audit Report, issued by DNV GL Surveyor, 2016-05-30.

Safety valve arrangement drawings, Type 30, Type 31 / BG I

Capacity and test report for safety valve types 30.1, 30.2 and 30.7 / BG I 31.1, 31.2 and 31.7 / BG I, issued by TÜV Nord 2012-02, Test No. 11-713

Remarks

Product(s) approved by this certificate is/are accepted for installation on all

vessels classed by DNV GL.

Valid until 2021-06-23

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File No.

II.A.15

Hamburg, 2016-06-24

Type Approval Symbol

(GL)

DNV GL

Olaf Prews

Mide Friederich

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PRODUCTION PLACE

Niezgodka GmbH Bargkoppelweg 73 22145 Hamburg

Materials

Type 30 BG I

[30.1: 1.0460/0.7043; 30.2: 1.4571/1.4581; 30.7: 1.4571/1.4308] *

* (Inlet body/outlet body)

Type 31 BG I

[31.1: 1.0460/0.7043; 31.2: 1.4571/1.4581; 31.7: 1.4571/1.4308] *

MARKING

The safety valve has to be marked at least with the following data:

- Manufacturer's mark or symbol
- Safety valve type
- Application (D/G: Service for Steam/Gas); (F: Service for non-boiling liquid)
- Set pressure
- Discharge coefficient

LIMITATIONS

The safety valves may not be used on pressure vessels for carriage and operation of dangerous goods and cryogenic media on ships subject to the IGC Code and/or DNV GL Rules Part 5, Chapter 7 - "Liquefied gas tankers".

The selection of the safety valves for the corresponding service and operation conditions as well as right installation under consideration of the used materials and media to be discharged have to be in compliance with the instructions of the manufacturer.

REMARKS

- The safety valves are to be adjusted by the manufacturer.
- The manufacturer's instructions for cleaning and maintenance of the safety valves are to be observed.
- Safety valve details, e.g. discharge coefficient, flow capacities, etc., are to be taken from the manufacturer's data sheets.
- Requirements concerning safety valve installation are to be taken from the manufacturer's operating manuals.

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Hamburg, 2016-06-24

Type Approval Symbol

(GL)

DNV GL

Olaf Drews