

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Safety Valve for Boiler and Pressure Vessel

with type designation(s)
NS255F Series

Issued to

Nakakita Seisakusho Co., Ltd.
Daito-city, Japan

is found to comply with

DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV GL rules for classification – Ships Pt.4 Ch.7 Pressure equipment
DNV GL class programme DNVGL-CP-0186 – Type approval – Valves

Application :

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

K. factor: 2.25

This Certificate is valid until **2021-12-14**.

Issued at **Høvik** on **2016-12-15**

DNV GL local station: **Kobe**

Approval Engineer: **Sinisa Sedlan**

for **DNV GL**

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Marianne Spæren Marveng
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.

Product description

Full lift type, spring loaded safety valves

Type designation:

- NS255FY - Full lift safety valve with yoke construction and standard disc
- NS255FYS - Full lift safety valve with yoke construction and super disc
- NS255FP - Full lift safety valve with pillar construction and standard disc
- NS255FPS - Full lift safety valve with pillar construction and super disc

Sizes: DN25, 32, 40, 50, 65, 80, 90, 100, 115, 125 and 150

Materials:

Body	Cast iron,	FC200 - JIS G5501
	Cast steel,	SCPH2, SCPH11, SCPH21 or SCPH32- JIS G5151
Disc:	Stainless steel,	SUS630 - JIS 4303
	Carbon steel,	S25C - JIS G4051
	Cr-Mo Steel,	ASTM A182 F11, ASTM A182F22
	Alloy steel,	INCONEL X750
Nozzle:	Carbon steel,	S25C - JIS G4051
	Cr-Mo Steel,	ASTM A182 F11, ASTM A182F22

Application/Limitation

Max. pressures and temperatures depending on body material:

Material:	Cast iron	Cast steel
Pressure	2 bar	154 bar
Temperature	120°C	565°C

On boilers or steam-heated steam generators the following limitations applies:

- Safety-valves of ordinary type with seats of less than 38 mm inside diameter shall not be used. (Reference is made to DNV GL ship rules Pt.4 Ch.7 Sec.5 [2.1.8])
- For full lift safety valves the inside seat diameter shall not be less than 20 mm. (Reference is made to DNV GL ship rules Pt.4 Ch.7 Sec.5 [2.1.8])
- The discharge from safety valves shall be to a point where hazard is not created. (Reference is made to DNV GL ship rules Pt.4 Ch.6 Sec.5 [7.4.1])

Type Approval documentation

Tests carried out

Hydrostatic test report, Functionality & capacity test reports

Production Testing

All valve bodies shall be subject by the manufacturer to a hydrostatic test at a pressure equal to 1.5 times the set pressure (maximum working pressure at room temperature).

Each valve shall be subject to leakage test (at 90% of set pressure) after reset and have set pressure sealed and verified.

Job Id:
Certificate No: **TAP00000NE**

Certification

Valves with sizes DN115, DN125 and DN 150 shall be delivered with product certificate when design pressure is greater than 16 bar. Other valves may be delivered with manufacturer's works certificate only (reference is made to DNV GL ship rules Pt.4 Ch.6 Sec.9 [3.3.1]).

Material certificates shall be according to DNV GL Pt.4 Ch.6 Sec.2 Table 3.

Marking of product

For traceability to this type approval the valves are to be marked as a minimum with:

- Manufacturers name or trade mark
- Type designation
- Pressure rating
- Size

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment every second year and before the expiry date of this certificate, to verify that the conditions for the type approval are complied with.

When possible, this assessment may be harmonised with normal surveys for product certification and / or other surveys and audits carried out.

The main elements of the certificate retention survey are:

- 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
- Review of Type Approval documentation and assurance that it is still used as basis for production
- Review of possible changes in design, materials and performance
- Assurance of traceability between manufacturer's product type marking and Type Approval Certificate.

Renewal should be applied for in writing before the certificate expires.