



DNV

DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. P-12695

This Certificate consists of 3 pages

This is to certify that the
Safety Valve for Boiler and Pressure Vessel
with type designation(s)
3500 and 2600

Manufactured by
Broady Flow Control Ltd
HULL HU3 2DU, United Kingdom

is found to comply with
Det Norske Veritas' Rules for Classification of Ships
Det Norske Veritas' Standards for Certification 2.9 No. 5-794.40

Application

Type:
K. factor:

3500 and 2600
Sonic flow: 0.956

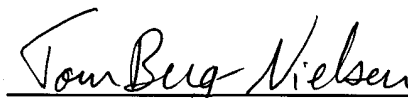
Place and date
Høvik, 2008-03-26
for DET NORSKE VERITAS AS


Hanne Anita Hjerpetjønn
Head of Section



Local Office
DNV Grimsby

This Certificate is valid until
2012-12-31


Tom Berg-Nielsen
Surveyor

Notice: 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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: P-12695
File No.: 746.11
Case no. 262.1-003103

Product description

Series 2600:

Flanged type

Sizes:

½", x 1", ¾" x 1", 1" x 1"

Design:

Stainless steel, ASME SA351 Grade CF8M and carbon steel, ASTM A216 WCB body with stainless steel, ASTM A564 Grade 630 disc. Closing action of main valve operated by a spring.

Series 3500:

Flanged type

Sizes:

1" x 2", 1 ½" x 2", 1 ½" x 3", 2" x 3", 3" x 4", 3" x 6", 4" x 6", 6" x 8", 6" x 10", 8" x 10"

Design:

Stainless steel, ASME SA351 Grade CF8M and carbon steel, ASTM A216 WCB body with stainless steel, ASTM A564 Grade 630 disc. Closing action of main valve operated by a spring.

Application/Limitation

The valves are approved for boilers and pressure vessels.

Each valve is to be certified by Det Norske Veritas' Surveyor.

Documents, signboards etc. which are to accompany each product/delivery:

- Instruction and maintenance manuals.
- Surveyor's Report.

Documentation of material used in the valve is to be acc. to Table E1 of Pt.5 Ch.5 Sec.2.

The following tests (to be done on each valve) are to be performed under the supervision by a Surveyor of Det Norske Veritas:

- Hydraulic test to 1.5 times the maximum allowable pressure setting.
- Checking of set pressure (popping pressure) and reset pressure at room temperature. Set pressure to be sealed.
- Auxiliary set and reset pressure.
- Leak test after reset at 90% of each set pressure at room temperature.
- Sufficient valve capacity is to be approved for each application.



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Type Approval documentation

Ringbinder with test documentation and drawings/brochures as received with DNV
Grimsby's letter dated 29.06.2005

Tests carried out

Flow test, Set and leakage test

Marking of product

For traceability to this type approval each valve is to be marked with:

- Manufacturers name or trademark
- Type designation
- Size
- Max. allowable relief valve setting

Certificate retention survey

For retention of the Type Approval and if no certification has taken place during the last year of the validity period, Det Norske Veritas' surveyor shall perform a survey at the manufacturer's premises before the expiry date of this certificate, to verify that the conditions for Type Approval complied with.

END OF CERTIFICATE