DNV·GL

Certificate No:
TAP0000152

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Gate Valve

with type designation(s)
Non-rising Stem Type

Issued to
Dikkan Gemi ve Endustriyel Vana Sanayi Ticaret Anonim Sirketi
Izmir, Turkey

is found to comply with
DNV GL class programme DNVGL-CP-0186 – Type approval – Valves
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

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

Temperature range:	**0°C to 120°C**
Max. working press.:	**16 bar (except for DN 250 where it is 10 bar, see page 2)**
Sizes:	**DN 40 to DN 250 (see page 2)**

Issued at **Høvik** on **2018-01-02**
This Certificate is valid until **2023-01-01**.
DNV GL local station: **Istanbul**

for **DNV GL**

Approval Engineer: **Maheshraja Venkatesan**

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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

Gate valves – non rising stem type designed as per EN 12516-3 with the following data:

Valve size	*Minimum wall thickness of valve body & bonnet, mm*	*Maximum allowable working pressure, bar(g)*
DN 40	7	16
DN 50	7	16
DN 65	8	16
DN 80	8.5	16
DN 100	9	16
DN 125	9	16
DN 150	10	16
DN 175	10.5	16
DN 200	11	16
DN 250	14	10

End flanges are in accordance with EN 1092-2.

Material of construction:

Valve component	*Material grade*
Body, bonnet & gland	EN GJS-400-18-LT from EN 1563
Wedge	EN GJS-400-18-LT from EN 1563/ CuSn5Zn5Pb5-C from EN 1982
Seat	CuSn5Zn5Pb5-C from EN 1982/ X5CrNi18-10 from EN 10028-7
Stem	CuZn39Pb3 from EN 12164 X20Cr13 from EN 10088-3
Bonnet gasket	Organic fibers/ mineral fibers bonded by NBR elastomer
Gland packing	PTFE

Application/Limitation

Valves covered by this certificate are approved to be used class II and class III piping systems in accordance with DNV GL Ship Rules Pt.4 Ch.6 and also:

- on the ship's side and bottom
- on the collision bulkhead

Pressure temperature ratings shall follow Table 16 from EN 1092-2.

Valves covered by this certificate are not considered as fire-safe.

The approval does not include any operating gear for remote control of the valves.

The valves may not be used as shut off or quick closing valve.

Production testing

All valve bodies shall be subjected by the manufacturer to a hydrostatic test at a pressure equal to 1.5 times the nominal pressure (The nominal pressure is the maximum allowable working pressure at room temperature).

All valve assemblies shall be subjected to seat leakage test at 1.1 times maximum working pressure at closed position.

Production Testing and acceptance criteria shall be in accordance with EN 12266-1 (leakage rate A).

For valves fitted on ship's side and bottom the test pressure shall not be less than 5 bar.

Certification

Valve bodies shall be delivered with material certificates in accordance with DNV GL Ship Rules Pt.4 Ch.6 Sec.2 Table 3. Materials with VL and W certificates shall be manufactured in a foundry approved by the society.

DNV GL product certificates are required for valves with DN > 100 and design pressure ≥ 16 bar, and for ship side valves where DN > 100 regardless of pressure. For other valves a manufacturer's product certificate may be accepted.

Type Approval documentation

Tests carried out
Burst tests as per EN 12516-3

Marking of product
Valves shall be marked at least with the following details:
- manufacturer's name or trade mark
- valve type designation
- size
- maximum design pressure and temperature
- arrow to indicate direction of flow on one way flow valves

Periodical assessment
For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.