DNV·GL

Certificate No:
**TAP00000ED**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Vent Head for Tank**

with type designation(s)
**CB / T 3594-94, CB / T 3594-94 (Q), CB / T 3594-94 FS, CB / T 3594-94 (Q) FS**

Issued to
**Qingdao Yongjian Marine Machinery Manufacture Co., Ltd.**
**Qingdao 120, China**

is found to comply with
**DNV GL rules for classification – Ships**
**DNV GL rules for classification – Yachts**
**DNV GL rules for classification – Offshore units**

## Application :

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

**Sizes: up to DN 600**

This Certificate is valid until **2017-07-01**.

Issued at **Hamburg** on **2016-07-06**

for **DNV GL**

DNV GL local station: **Qingdao**

Approval Engineer: **Peter Gierhan**

**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 Approval Certificate and not to the approval of equipment/systems installed.


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## Product description

Air Pipe Head with disc and ball float.

Design:
Hot dipped galvanized steel housing.
A wire mesh of stainless steel is optional.

Technical Data CB / T 3594-94
Body: QT 400-15, EN-GJS-400-15 (5.3106)
Float/ Disc: 0Cr25Ni5Mo2
Gasket: HN8433 (NBR)
Size Range: DN 50 up to DN 450

Technical Data CB / T 3594-94 (Q)
Body: Q235B. S235JR (1.0038)
Ball Float: 06Cr19Ni10
Gasket: HN8433 (NBR)
Size Range: DN50 up to DN350

Technical Data CB / T 3594-94 FS
Body: QT 400-15, , EN-GJS-400-15 ( 5.3106 )
Ball Float: 06Cr19Ni10
Gasket: HN8433 (NBR)
Size Range: DN 50 up to DN 250

Technical Data CB / T 3594-94 (Q) FS
Body: Q 235 B, S235JR (1.0038)
Ball Float: 06Cr19Ni10
Gasket: HN8433 (NBR)
Size Range: DN 300 up to DN 600

## Application/Limitation

The flow capacities are based on tests with wire mesh fitted.
The air pipe head is type approved as automatic closing device on air and overflow pipes which terminates on open deck.
To prevent blocking of the air pipe head openings by the ball during tank discharge the max. allowable air velocity determined by the manufacturer is to be observed
The use of air pipe closing devices for cargo tanks on tankers is subject to individual approval by DNV GL in each individual case.
Air pipe heads on ballast water tanks are not approved for permanent discharge/ exchange of ballast water flowing through the closing device of the air pipe heads.
The selection of the air pipe heads for the corresponding application and the right installation are to be in accordance with the instructions of the manufacturer.

## Type Approval documentation

Test reports dated 2012-04-09/ Shanghai University
Test reports dated 2016-02-20/ Shanghai University
Drawings CB/ T3594-94 50QT - 450QT
Drawings CB/ T3594-94 FS, dated: 2015-10
Drawings CB/ T3594-94 /Q) FS, dated: 2015-10
Type Approval Assessment Report, dated: 2015-12-28
Welding Procedure Specification No.: QIST00029, dated: 2015-05-10
DNV GL-Ref.-No.: 12-014315, 12-060631

## Tests carried out

Tightness test, Flow Resistance test, Float Impact test, Float compression load test, reverse flow test
DNV GL class programm DNVGL-CP-0187

## Marking of product

For traceability to this type approval the products are at least to be marked:
- Manufacturer's name or trade mark
- Type designation
- Body material
- Size

## Periodical assessment

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

END OF CERTIFICATE