Certificate No:
TAP00002E0

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Gauge Glass Level Indicator

with type designation(s)
JZ-Axxx-00 and JZ-Bxxx-00

Issued to
Nantong Jiuzhou Ship Mechanical Fittings Co., Ltd.
NANTONG, JIANGSU, China

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

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

Temperature range:	**0°C up to 60°C**
Max. working press.:	**up to 2,0 bar**
Design:	**Flat glass**

Issued at **Hamburg** on **2021-07-27**
This Certificate is valid until **2026-07-26**.
DNV local station: **Nantong**

for **DNV**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

Double Flat Glass Oil Level Gauge with two colours plate glass oil level indicators device used for indicating level of liquid storage equipment such oil tanks on boats and ships.

The main components of the double flat glass oil level gauge are Under Self-closing Valve, Under Rotating Connection, Weld bed plate, Support, Control Device, Body of Level Gauge, Upper Rotating Connection and Upper Self-closing Valve.

Materials:

Body Level Gauge:	Q235A, (1.0038) S235JR
Glass:	Borosilicate
Flange:	Q235A, (1.0038) S235JR

Technical Data:

Working pressure: up to 2 [bar] /0.2 [MPa]
Temperature range: 0°C up to 60°C
Design: Flat glass

Application

The double flat glass oil level gauge of type JZ-A and JZ-B are type approved for the use on tanks arranged above double bottom.

Maximum allowable service temperature and pressure according to pipe class III refer to DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems.

May be used in engine room and machinery spaces on tanks containing water or fluids having a flash point above 60 ºC.

Limitation

The double flat glass oil level gauge is not to be used on fuel and oil tanks on passenger ships.
Is only to be used on tanks having an overflow pipe which keeps the highest oil level in the tank below the air holes in the top of the gauge.
Are to be fitted with self-closing cocks at the lower end and at the top end if the connection to the tank is below the maximum oil level

Note: The selection of the level gauges for the corresponding application and the right installation are to be in accordance with the instructions of the manufacture.

Type Approval documentation

Tests carried out

Strong tests, burst tests, tightness tests and visual inspection.

Marking of product

For traceability to this type approval each double oil level gauge is to be marked with:

- Product name
- Type
- Product number
- Date of production
- Manufacturer's name

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 Type Approval are complied with. Refer to DNVGL-CP-0338, Sec.4.

END OF CERTIFICATE