



Marine & Offshore

Certificate number: 09825/E0 BV

File number: ACM 135/0509/3

Product code: 2130H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Gates Tube Fittings GmbH

Euskirchen - GERMANY

for the type of product

MECHANICAL JOINTS - COMPRESSION COUPLINGS - SCREW TYPE

DS-RING and DSW-RING

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 06 Dec 2026

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 06 Dec 2021,

Adama Diene



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

DS-ring and DSW-ring

1.1 Identification and technical data:

EMB DS-ring: Cutting ring with 2 edges

EMB DSW-ring: Cutting ring with 2 edges + elastomer - type seal

Series	Tube diameter [mm]	Nominal pressure [bar] (Steel fittings)
Low pressure (LL)	4 - 8	100
Medium pressure (L)	6 - 10	500
	12 - 18	400
	22 - 42	250
High pressure (S)	6 - 10	800
	12 - 16	630
	20 - 38	400

Reduction of pressure-rating applies depending on material and service temperature as per manufacturer's catalogue.

1.2 Material:

Fitting: Steel (DIN 3859-1), brass or stainless steel (DIN 17440)

Seal: NBR/FPM/PTFE

1.3 Temperature range depending on for the used materials:

Material	Minimum allowable temperature [°C]	Maximum allowable temperature [°C]
Carbon steel	-40	+250
Stainless steel	-60	+400
NBR	-35	+100
FPM	-25	+200
PTFE	-60	+200

2. DOCUMENTS AND DRAWINGS:

- Manufacturer's catalogue n° 1.000 D/GB/F - 0903

- Drawings n° HN70, HN106, HN26, HN226, HN283, HN284

3. TEST REPORTS:

BUREAU VERITAS qualification test performed in MPA's laboratory in the presence of the Society's Surveyor:

- Assembly test, static pressure test, impulse test, flame resistance test, burst test, vacuum test, test report n° 120239199

4. APPLICATION / LIMITATION:

4.1 Screw couplings intended to be used on hydraulic oil piping on board ships.

4.2 The Screw couplings are to be at any time accessible.

4.3 The bulkhead unions are not to be used as fittings in way of watertight or oil tight bulkheads or decks.

4.4 In all cases, the associated pipes are to be suitably adjusted, aligned and anchored.

4.5 The manufacturer's assembly instructions are to be complied with.

4.6 The wall thickness and the material of the used tubes are to be in accordance with the Rules of BUREAU VERITAS.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The screw couplings are to be supplied by **Gates Tube Fittings GmbH** in compliance with the type described in this certificate.
- 5.2 This type of product is within the category HBV of BUREAU VERITAS Rule Note NR320 and as such does not require a BUREAU VERITAS product certificate.
- 5.3 **Gates Tube Fittings GmbH** has to make the necessary arrangements to have its works recognised by BUREAU VERITAS in compliance with the requirements of NR320 for HBV products.
- 5.4 For information, **Gates Tube Fittings GmbH** has declared to BUREAU VERITAS the following production sites:
Gates Tube Fittings GmbH, Euskirchen / GERMANY

6. MARKING OF PRODUCT:

Each screw coupling is to be clearly identified to avoid any wrong utilization as per manufacturer's instructions:

- Manufacturer's name or logo
- Model
- Size
- Nominal diameter
- Nominal pressure

7. OTHERS:

- 7.1 It is **Gates Tube Fittings GmbH**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
- 7.2 This certificate supersedes the Type Approval Certificate N° 09825/D0 BV issued on 13 Nov 2015 by the Society.

*** END OF CERTIFICATE ***