


DNV

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001RZ
Revision No:
1

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Dual-purpose type nozzles (spray/jet type): Hand-held branch pipes for fire service use - Combination branch pipes PN 16

with type designation(s)
QD12, QD16, QD19

Issued to

Nantong Haizhou Marine Equipment Co.,Ltd.
Haimen, China

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2021/1158,
item No. MED/3.55a. SOLAS 74 as amended Regulation II-2/10 & X/3, 1994 HSC code 7 & 2000 HSC code 7

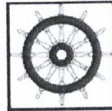
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2027-04-06**.

Issued at **Hamburg** on **2022-04-07**

DNV local station:
Nantong

Approval Engineer:
Christian Kaemmer



Notified Body
No.: **0098**

for DNV SE
Nantong Haizhou Marine Equipment Co. Ltd
Digitally Signed By: Mydlak-Röder, Christine
DNV
Location: DNV SE Hamburg, Germany
Christine Mydlak-Röder
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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.

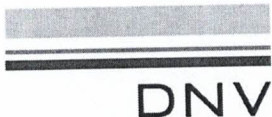


Form code: MED 201.DEU

Revision: 2022-02

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Page 1 of 2



Job Id: 344.1-006057-6
Certificate No: MEDB00001RZ
Revision No: 1

Product description

Dual-purpose spray/jet nozzles of type QD12, QD16 and QD19 for discharging water from the ship's fire main by using fire hoses.

The maker's designation for the nozzles is "water fog / water column dual-use nozzles".

Material: Aluminium alloy (nozzle), brass (coupling)

Performance is as follows:

Parameter \ Type	QD12	QD16	QD19
Nominal pressure [bar]	16	16	16
Reference pressure [bar]	6	6	6
Flow rate at straight jet ¹⁾ [l/min]	280	356	408
Effective throw ¹⁾ [m]	28.4	30.5	33.1
Flow rate at wide spray jet ¹⁾ [l/min]	526	535	541
Maximum Angle of wide spray jet [°]	108	109	110

Note 1) At reference pressure of 6 bar.

Application/Limitation

Approved for discharging water from the fire main when coupled to fire hoses (SOLAS II-2/10.2.3.3.4 and 2000 HSC Code, 7.7.5.6).

Type Examination documentation

- Test Report No: 20220222 dated 2022-02-22
- Test Report No: 20220331 dated 2022-04-01
- Product data sheets from the manufacturer
- Previous GL Certificate MED-B 36741-11 HH; Ref.-No. 11-134424
- Declaration of "No change of product"

Tests carried out

Tested according to EN 15182-1 (2019) and EN 15182-2

Marking of product

The product or packing is to be marked according to EN 15182-1 §8.2 and the MED Mark of Conformity (see page No. 1).

DNV

QS - CERTIFICATE OF ASSESSMENT - EC (MODULE D)

Certificate No:
MEDD00000EZ
Revision No:
11

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Quality System for the products

with type designation(s) as specified in the Appendix to this Certificate

Issued to

Nantong Haizhou Marine Equipment Co.,Ltd.
Haimen, China

is found to comply with the applicable requirements.

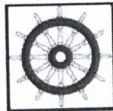
The quality system has been assessed with respect to the procedure of conformity assessment described in Annex II, Module D in the directive 2014/90/EU and regulation (EU) 2021/1158.

This Certificate is valid until **2025-11-23**.

Issued at **Hamburg** on **2022-04-29**

DNV local station:
Nantong

Approval Engineer:
Christian Kaemmer



Notified Body
No.: **0098**

for **DNV SE**

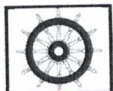
Digitally Signed By: Mydlak-Röder, Christine

Location: DNV GL SE Hamburg, Germany



Christine Mydlak-Röder
Nantong Haizhou Marine Equipment Co. Ltd
Head of Notified Body
Quality Control Department

The manufacturer is allowed to affix the U.S. Coast Guard approval number(s) as stated in the appendix attached hereto and as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2018 dated February 18th, 2019.



0098/yyyy

0098: Notified Body number undertaking quality surveillance
yyyy: The year in which the mark is affixed

The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate authorizes the manufacturer in conjunction with the valid EC Type Examination (Module B) Certificate(s) of the equipment listed before to affix the Mark of Conformity (wheelmark) to the product described herein. This certificate loses its validity if the manufacturer makes any changes to the approved quality system, which have not been notified to, and agreed with the notified body named on this certificate. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. The Manufacturer has to apply for periodical audits to verify the maintenance and application of the quality system every 12 months.

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.

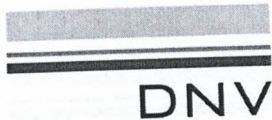


Form code: MED 211.DEU

Revision: 2022-02

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Page 1 of 3



Job Id: 344.1-005611-13
Certificate No: MEDD00000EZ
Revision No: 11

APPENDIX

Item no. MED/1.2c Position indicating lights for life-saving appliances: (c) for lifejackets

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
HZ-LJL ¹	MEDB00006WY	2022-09-12	0098	161.112/EC0098 /MEDB00006WY

Item no. MED/1.4 Lifejackets

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
HZ-IJ (Infant) ¹	MEDB00007AB	2026-03-01	0098	N/A
HZ-IL-I 150N (Inflatable, Adult) ¹	MEDB00007AC	2026-03-01	0098	N/A
HZ-IL-II 275N (Inflatable, Adult) ¹	MEDB00007AD	2026-03-01	0098	N/A
HZ-AJ-I ¹	MEDB0000760	2025-11-23	0098	N/A
HZ-AJ-II ¹	MEDB000075Z	2025-11-23	0098	N/A
HZ-CJ ¹	MEDB000075Y	2025-11-23	0098	N/A

Item no. MED/1.5b Immersion suits and anti-exposure suits designed to be worn in conjunction WITH a lifejacket: Immersion suit with inherent insulation

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
HZ-IS-I ¹	MEDB00003CM	2023-02-06	0098	N/A

Item no. MED/1.6b Immersion suits and anti-exposure suits designed to be worn WITHOUT a lifejacket: (b) Immersion suit with inherent insulation

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
HZ-IS-II (M, L, XL) ¹	MEDB000075X	2025-11-23	0098	N/A

Item no. MED/3.3 Fire-fighter's outfit: protective clothing (close proximity clothing)

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
HZ-FC ¹	MEDB000044E	2024-04-04	0098	N/A

Item no. MED/3.41 Emergency escape breathing devices (EEBD)

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
THHZ10 and THHZ15 ¹	MEDB00006EM	2025-02-25	0098	N/A

Item no. MED/3.44 Firefighters outfit - lifeline