

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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

This is to certify:

That the Voyage data recorder (VDR)

with type designation(s)
HMT-100A

Issued to

Qingdao Headway Technology Co., Ltd.
Qingdao, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/4.29. SOLAS 74 as amended, Regulations V/18, V/20 & X/3, IMO Res.
A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res.
MSC.302(87), IMO Res. MSC.333(90)

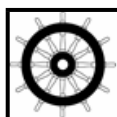
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-11-08**.

Issued at **Hamburg** on **2017-11-09**

DNV GL local station:
Qingdao

Approval Engineer:
Harald Bluhm



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudszus
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), 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.

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 GL 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

The voyage data recorder HMT-100A contains of the following equipment:

Main Cabinet Unit with One Long-term Data Recording unit	HMT-101A	Software ver. 1.3
VDR Remote Alarm Unit	HMT-105	Software ver. 1.4
Microphones (internal)	HMT-103	
Microphones (external)	HMT-104	
Final recording médium	H100A-PDC	Software ver. 1.2
Float free recording médium	H100A-FPDC	Software ver. 1.2
Remote Acquisition Unit	HMT-102	Software ver. 1.01

Playback Software Version: 2.0.1.0
Configuration Software : 1.2

Documentation:
Installation Manual: HMT/QW-824-67 Ver. B
Operation Manual: HMT/QW-824-68 Ver. B
Investigation Authority Manual: HMT/QW-824-69 Ver. B

Type Examination documentation

Tests carried out

IEC 60945 (2002) including Corrigendum 1 (2008), IEC 61162-1 (Ed.4), IEC 61162-2(1998), IEC 61162-450(2016), IEC 62288 Ed.2.0(2014), IEC 61996-1 Ed.2 (2013).

Marking of product

According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorised representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.