

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 Track control system (TCS)

with type designation(s)
Totem Plus TCS

Issued to

Totem Plus Europe GmbH
Hamburg, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170**,
item No. MED/4.33. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res A.694(17),
IMO Res MSC.74(69), IMO Res MSC.191(79), IMO Res MSC.302(87)

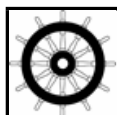
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-08-10**.

Issued at **Hamburg** on **2020-11-19**

DNV GL local station:
Hamburg – CMC North/East

Approval Engineer:
Jörg Rebel



Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
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, and amended by Decision No 1/2018 dated February 18th, 2019.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **344.1-011168-1**
Certificate No: **MEDB000076H**

Product description

The track control system TOTEM Plus TCS consist of the following components necessary for operation:

ECDIS Electronic unit type: TOTEM Plus with software version 3.0.x
Trackpilot Interface type: TOTEM Plus

To be connected alternatively with:

Heading Control System type: NautoPilot 5100, or
Heading Control System type: NautoPilot 5300, or
Heading Control System type: NautoPilot 5400, or
Heading Control System type: NautoPilot 5500, or
Heading Control System type: PT900A, or
Heading Control System type: PT900D, or
Heading Control System type: PT900A PLUS

For component information, refer to respective type approval certificates MEDB0000386, MEDB00003BV and MEDB00004F2 (each in its latest revision)

Application/Limitation

None

Type Examination documentation

DNV GL No	Document ID	Rev.	Description
7	-	2.2	User manual for Totem ECDIS (software version 2.0)
6	-	2.1	Installation manual for Totem ECDIS (software version 2.0)
5	9049 15 68411	2020-11-16	Report: Totem Plus, Tests according to IEC 62065
3	TTD01-01-13_NP5000	2013-01-11	Report: Raytheon Anschütz, Tests according to ISO 16329
2	TTD01-04-12_NP5000	2012-04-25	Report: Raytheon Anschütz, Tests acc. to MSC.302(87) and MSC.252(83)
1	TTD01-09-10_NP5000	2010-10-04	Report: Raytheon Anschütz, Tests acc. to ISO 11674, IEC 62065, IEC 60945, IEC 62288 and IEC 61162-1

Tests carried out

- Environmental and EMC testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Interface testing: IEC 61162-1 (2016) and IEC 61162-2 (1998)
- Presentation testing: IEC 62288 (2014)
- Bridge alert management testing: IEC 61924-2 (2012), Module C incl. Corr. 1 (2013)
- Performance testing: IEC 62065 (2014)

Marking of product

According to IEC 60945, Sect.4.9:

The product to be marked with following information, where practicable:

- Identification of the manufacturer,
- Equipment type number or model identification under which it was type tested,
- Serial number of the unit,
- Compass safe distance.

Alternatively, the marking may be presented on a display at equipment start-up, and in case of fixed equipment compass safe distance may be given in the equipment manual.



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

- Wheel mark to 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.
- Wheel mark to be affixed at the end of the production phase.

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

END OF CERTIFICATE