

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the LR Type Approval System.

This certificate is issued to:

PRODUCER	Thrane & Thrane A/S
PLACE OF PRODUCTION	Lundtoftegaardsvej 93D DK-2800 Kgs. Lyngby Denmark
DESCRIPTION	Covert Ships Security Alert System, based on Inmarsat-C using Inmarsat Mini-C service for installation of max two activation push button stations
TYPE	TT-3000SSA
APPLICATION	Marine and Offshore applications for use in environmental categories ENV2 ⁽¹⁾ . ENV5 ⁽²⁾ in "Bridge and Deck Zone" as defined in LR Specification No.1, 2002. ⁽¹⁾ Interconnection Box TT-3616B, Opt 911 covert alert buttons and Opt 912 test button ⁽²⁾ Transceiver unit TT-3026M
STANDARD	Function to SOLAS Regulation XI-2/6 IEC 60945 (Transceiver: "exposed"; Interconnection box/ Buttons: "protected") IEC 60529 (2001-02) Ed. 2.1 (Transceiver part only)

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No.TA03/70004 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No.	03/70004
Issue Date	25 November 2003
Expiry Date	24 November 2008
Sheet	1 of 1


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THIS DOCUMENT IS SUBJECT TO THE PROVISIONS ON THE REVERSE

DESIGN APPRAISAL DOCUMENT

Date 24 November 2003	Quote this reference on all future communications TA/I049033/0311094/PEH
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THE LR TYPE APPROVAL SYSTEM, 2002.

Issued to: Thrane & Thrane A/S
for: Covert Ships Security Alert System Type TT-3000SSA
TYPE APPROVAL CERTIFICATE No.03/70004

The undernoted documents have been reviewed for compliance with the requirements of the LR Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Request form	10.10.2003
T&T: General Function Description of 3026M & 3616B	No date
Resolution MSC.136(76) "Performance Standards for a Ship Security Alert System"	
Resolution MSC.147(77) "Revised Performance Standards for a Ship Security System"	
MSC/Circ.1072 Guidance on Provision of Ship Security Alert Systems	10.10.2001
LR-QA certificate no.935142	
Declaration of Conformity with R&TTE Directive for TT-3026M	06.08.2002
T&T; Cable Dia. Schematic of TT-3000SSAS Covert Alert System	No date
T&T; TT97-114049:Mech. Assembly for TT-3026L	29.11.2001
T&T; TT97-116006: Mech. Assembly for TT-3616B Interconnection Box	17.07.2001
T&T; TT37-115656-A Cable Assembly	18.04.2001
T&T; 93-113475 TT-3616B Interconnection Box	03.07.2002
T&T; 97-120211 Test Button for TT-3000SSAS Option 912	05.09.2003
T&T; 97-120210 Alarm Button for TT-3000SSAS Option 911	05.09.2003

TEST REPORTS

TT95-116539 A Electromagnetic Emission and Immunity Test: of TT-3026L/M Mini C, incl. "Compass Safe Distance"	12.10.2001
DTI ref.no.1184504: "Corrosion Test"	03.10.2003
DELTA report no.E501623-1	24.11.2003

Comments

The type tests were carried out with a 20 meter cable between transceiver and interconnection box, however a function test ("on air test") was carried out with a 50 meter cable with satisfactory results.

The equipment shall be installed onboard according to the MSC 136(76) and a secure communication line from the Inmarsat LES to "the authority responsible for maritime security within its Administration" shall be arranged.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Ref. also the ships security plan as agreed by the Administration established in compliance with the SOLAS Amendments Chapter XI, Regulation 6 (ISPS Code).

Software version no. V 2.09

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.



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**Part 3
Control System – Convert Ships Security Alert System**

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
Thrane & Thrane A/S Lundtoftegaardsvej 93D DK-2800 Kgs. Lyngby Denmark	Covert Ships Security Alert System Type TT-300SSA: -Transceiver type TT-3026M - Interconnection box type TT- 3616B -Opt 911 Covert Alert Buttons -Opt 912 Test Button	Based on the Inmarsat-C Transceiver and Inmarsat Mini-C service. Power supply 24VDC (Battery/Em. Supply)	ENV2 Interconnection box and buttons ENV5 Transceiver (2002) IEC 60945	Expires:24 November 2008 Installation onboard: -MSC 136(76) -MSC 147(77) -Ships security plan as approved by the Administration as required in the ISPS Code.	03/70004