



EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), designated as a "notified body" under the terms of the Merchant Shipping (Marine Equipment) Regulations 2016 (S.I. 2016 No.1025), did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Life-saving appliances requirements of Marine Equipment Directive (MED) 2014/90/EU and Commission Implementing Regulation (EU) 2017/306 indicating design, construction and performance requirements and testing standards for marine equipment, subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer (Applicant)	Neander Shark GmbH
Address	Werftbahnstr. 8, 24143 Kiel, Germany
Reference	Regulation 2017/306
Regulation Item	MED/1.37 RESCUE BOAT PROPULSION ENGINE-OUTBOARD MOTOR
(No & Item designation)	
Product Type	RESCUE BOAT PROPULSION ENGINE
Product Description	Turbo Diesel Outboard Engine, 36.8 kW @ 4.000 rpm - Type: "Dtorque 111"
Specified Standard	IMO Resolution MSC.81(70) Part 1 as amended to date

The attached Design Appraisal Document (schedule) forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue	13 June 2017	Expiry date	12 June 2022
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Certificate No.	MED 1750113	Signed	
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Sheet No.	1 of 4	Name	L. Thomas For and on behalf of Lloyd's Register Verification LRV EC Distinguishing No. 0038
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Note:

This certificate is issued under the authority of the MCA.

This certificate is not valid for equipment; the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.

Lloyd's Register Verification Limited (Reg. no. 4929226) is a limited company registered in England and Wales. Registered office: 71 Fenchurch Street, London, EC3M 4BS, UK. A subsidiary of Lloyd's Register Group Limited.

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Lloyd's
Register

Lloyd's Register Verification Limited

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Document number MED 1750113
Issue number 1

DESIGN APPRAISAL DOCUMENT

Date 13 June 2017	Quote this reference on all future communications SOUTSO/SFS/TA/LT/FO/WP28684185
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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1750113

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

EXAMINED DOCUMENTATION

Operation Manual, edition 01, dated 01/2017

Drawing No	Revision	Date	Drawing Title
303131	2	02.06.2017	ENGINE BLOCK
303163	3	02.06.2017	ADAPTER PLATE
303132	2	02.06.2017	CYLINDER HEAD ASSEMBLY
303133	1	11.05.2017	VALVE TRAIN ASSEMBLY
303134	2	02.06.2017	CRANK TRAIN
303135	3	02.06.2017	CHAIN DRIVE
303136	2	02.06.2017	FUEL SYSTEM
303137	2	02.06.2017	INTAKE EXHAUST SYSTEM
303138	2	02.06.2017	ELECTRICAL SYSTEM
303139	3	02.06.2017	COWLING
303140	2	02.06.2017	LEG
200569	3	11.04.2017	LEG MACHINING
300165	28	15.05.2017	CYLINDER BLOCK
300185	30	19.05.2017	BLOCK ASSEMBLY
300417	4	13.03.2017	TURBO ASSEMBLY
203010	0	13.06.2017	FORWARD GEAR
203007	0	12.06.2017	HOLLOW STUD
300422	3	10.03.2017	WIRING HARNESS
203484	0	12.06.2017	PROPELLER GUARD
203485	0	12.06.2017	PROPELLER GUARD WITHOUT MESH
203012	0	12.06.2017	REVERSE GEAR

TEST REPORTS

Report Title or Report Author

Rescue Boat Outboard Engine - Evaluation and Test Report for Dtorque 111, MSC/Circ.980/Add.2/Annex 5.1 (LR - Hamburg Office, Visit report number "Dtorque 111/ 001")

Report No.

W04755933

Date

23.03.2017



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CONDITIONS OF CERTIFICATION

1. **Engine Specifications:**

Type:	4-Stroke turbo diesel with double counter-rotation crankshafts
Number of cylinder:	2 cylinders In-line
Bore and stroke:	80 mm x 80 mm
Piston displacement:	804 cm
Starting method:	Electric
Alternator	Standard 12 V/ 300 W
Weight:	178 kg (Basic Version)

2. Detailed instructions for use, maintenance and installation of the engine complying with SOLAS Regulations III/35 and 36 and also instructions for use and maintenance of all machinery and equipment shall be provided to each purchaser and be available on board. The equipment shall be kept in good working order at all times and checked at regular intervals according to the manufacturer's instructions and SOLAS requirements
3. Water-resistant instructions for starting and operating the engine shall be provided and mounted in a conspicuous place near the engine starting controls. Each marking of control, gage or display shall be permanent and weatherproof
4. This engine is NOT suitable for use on fast rescue boats
5. Outboard engine to be equipped with a propeller guard
6. Installation on board: The on board arrangements and installation of the engine are not part of this design appraisal or certificate. All such arrangements are to be to the satisfaction of the Surveyors attending
7. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply
8. Production items are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D) or Product Quality Assurance (Module E) or Product Verification (Module F) of the Marine Equipment Directive. **The wheelmark cannot be affixed to the product until a conformity assessment module is in place**
9. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2 and be recorded by the manufacturer in accordance with either the approved Production Quality Assurance system (Module D) or Product Quality Assurance (Module E) or witnessed by the Notified Body as required by the Product Verification (Module F) of the Marine Equipment Directive. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration
10. Each item, batch or lot of the equipment is to have the "Mark of Conformity" affixed and be issued with a "Declaration of Conformity"



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11. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained

PLACES OF PRODUCTION

Steyr Motors GmbH,
Im Stadtgut B1,
4407 Steyr,
Austria

SELVA S.p.A.
23037 Tirano (Sondrio)
Viale dell'Industria, 13
Italy



Lijo Thomas
Senior Specialist
Statutory Fire & Safety
Southampton Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038