

Marine & Offshore Division Certificate number: 09577/D0 EC File number: LSA 22689/02 Annex A1 Item number: A.1/1.36 This certificate is not valid when presented without the full

attached schedule composed of 7 sections WWW.veristar.com

Notified Body 0062 - MARINE EQUIPMENT DIRECTIVE 96/98/EC

EC TYPE EXAMINATION CERTIFICATE

as per Module B of European Union Council Directive 96/98/EC on marine equipment as amended by Commission Directive 2013/52/EU

> This certificate is issued to NANNI INDUSTRIES SAS

LA TESTE - FRANCE

for the type of product LIFEBOAT/RESCUE BOAT PROPULSION ENGINE

Inboard NANNI diesel engines, type N4.38 / N4.38 KC

Requirements:

SOLAS 74 Convention as amended, Regulations III/4, III/34, X/3,

IMO Res. MSC.48(66) amended by MSC.207(81), MSC.218(82), MSC.272(85), MSC.293(87) and MSC.320(89) IV, V IMO Res. MSC.81(70) amended by MSC.200(80), MSC.226(82), MSC.274(85), MSC.295(87), MSC.321(89) and MSC.323(89) IMO MSC/Circ.980

This certificate is issued on behalf of the French Maritime Authorities to attest that BUREAU VERITAS did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Council Directive 96/98/EC of 20 December 1996 as amended.

This certificate will expire on: 03 Jun 2020

For BUREAU VERITAS Notified Body 0062, At BV BORDEAUX, on 03 Jun 2015,

Jacky BOUQUET

BUREAU VERIT PARIS 1828 Z ATIONAL

This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. BUREAU VERITAS is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

<u>1. PRODUCT DESCRIPTION :</u>

Inboard diesel engines, types NANNI DIESEL N4.38 & N4.38 KC

Main characteristics:

- 4 cylinders in Line Engine base: KUBOTA V1505, Japan (Bore x Stroke: 78 mm x 78.4 mm)
- Four stroke
- Heat exchanger or keel cooling
- Dry weight without reverse gear: 139 kg
- Crank shaft power / rotating speed: 28 kW at 3000 rpm

2. DOCUMENTS AND DRAWINGS :

- 2.1 Drawings:
- N°4.38 ES01.00 Specification data sheet (with reverse gear KANZAKI TTMC35P)
- N°4.38 CK01.00 Crankshaft

3. TEST REPORTS :

Model N4.38 / N4.38 KC, serial number 9N0798 type tested in accordance with IMO Resolution A.521(13):

- Cold engine starting test MSC.81(70) 1/6.10.2 6.10.4 performed at -16.3°C,
- Engine out of water test MSC.81(70) 1/6.10.5,
- Submerged engine test MSC.81(70) 1/6.10.6,
- Engine inversion test MSC.81(70) 1/6.14.6-6.14.8.

Tested on 21 & 22 December 2009 in NANNI's facilities/ La Teste de Buch, witnessed by a Bureau Veritas' Surveyor, as per test report dated 22 December 2009

4. APPLICATION / LIMITATION :

4.1 - Other materials and/or components:

Reverse gears
ZF HURTH type:
ZF 12M ratio: 2.14/1 ; 2.63/1
ZF 15M ratio: 1.56/1 ; 1.88/1 ; 2.63/1
TECHNODRIVE type:
TMC60 ratio: 1.52/1 ; 2/1 ; 2.5/1 ; 2.94/1
TM345 ratio: 1.54/1 ; 2/1 ; 2.47/1
KANZAKI type:
TTMC35P ratio: 2.33/1 ; 2.63/1

• Injection pump

Bosch MD type

• Battery

Type recommended as minimum: 12V / 50 Ah, discharge capacity 815A.

• Cold starting device

electrically operated glow plugs fitted one per cylinder.

• Electric stop under inversing condition

Gravity type.

4.2 - Application / Limitation of use:

• Inboard diesel engines intended for propulsion of Life-Saving Appliances as defined by LSA Code (IMO Resolution MSC.48(66)):

section 4.4 (lifeboat) section 4.5 (partially enclosed lifeboats) section 4.6 (totally enclosed lifeboats) section 4.7 Free-fall Lifeboats section 5.1 (Rescue boats)

and for fast rescue boats (SOLAS 74/96 Convention Reg. III/26.3).

• These engines are suitable for use when cold starting at -15°C is required with disposition of § 4.1 above.

4.3 - On board installation & Maintenance requirements:

- The engines shall be equipped with the parts listed in the manufacturer's Parts Catalog exclusively.
- The engines shall be delivered with the relevant documentation for their maintenance and their operation.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D "Production Quality Assurance" or E "Product Quality Assurance" or F "Product Verification" of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

5.2 - For information concerning the production phase modules, **NANNI INDUSTRIES SAS** has declared the following manufacturing place:

NANNI INDUSTRIES SAS Avenue Mariotte-Zone industrielle BP 107 F-33260 LA TESTE FRANCE

5.3 - The engine must be tested with all its final accessories.

5.4 - Each equipment or batch of equipment is to be supplied with its Manual for installation, use and maintenance.

6. MARKING OF PRODUCT :

- Type and serial number.

- Rated power and speed.

- Date of workshop trial.

- Markings as per MED 96/98/EC when authorized by a Notified Body:

- \square YYYY/XX where YYYY is the number of the Notified Body undertaking surveillance module (when BV, 0062) and where XX are the last two digits of year mark affixed.

7. OTHERS :

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the engines at any time and that the manufacturer will accept the responsibility for informing shipbuilders or their sub-contractors and/or shipowners of the proper methods of use and general maintenance of the engine and the condition of this approval.

7.2 - This certificate supersedes EC Type Examination Certificate n° 09577/C2 EC issued on 03 Jun 2010 by the Society.

*** END OF CERTIFICATE ***