



MARINE DIVISION

Certificate number: 20539/B0 EC

File number: LSA 22689/04

Annex A1 Item number: A.1/1.36

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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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 2011/75/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, types N4.60 / N4.60 KC

Requirements:

SOLAS Consolidated Edition 2001, Regs. III/4 and 34 - LSA Code (IMO Resolution MSC.48(66)) - IMO Resolution A.689(17), as amended by IMO Res. MSC.54(66) and by IMO Res. MSC.81(70), Part 1, paras 6.10.2 to 6.10.6 and 6.14.6 to 6.14.8.

This certificate is issued under the French Maritime Authority 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: 05 Sep 2018

For BUREAU VERITAS Notified Body 0062,

At BV BORDEAUX, on 05 Sep 2013,

Raphael Garnier



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 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

1. PRODUCT DESCRIPTION:

Inboard diesel engines, type NANNI DIESEL N4.60 / N4.60 KC

Main characteristics:

- 4 cylinders in Line Engine base: KUBOTA, Japan (Bore x Stroke: 83 mm x 92.4 mm)
- Four stroke
- Sea Water cooled (Heat exchanger or Keel cooling)
- Specific fuel consumption: 250 g/kWh at 2800 rpm full load
- Compression ratio: 21: 1
- Dry weight with reverse gear: 248 kg
- Crank shaft power / rotating speed: 44.2 kW at 2800 rpm

2. DOCUMENTS AND DRAWINGS:

Drawings:

- N° K 674 SLS B Electrical wiring diagram
- N° N4.60 CK01.00 Crankshaft
- N° N4.60.LS01.00 lubricating system
- N° N4.60.FS01.00 fuel system
- N° N4.60.FS02.00
- N° N4.60.FS03.00
- N° N4.60.CS01.00 cooling system
- N° N4.60.CS02.00
- N° N4.60.BS01.00 breather system,
- N° N4.60.FP01.00 fuel pipes drawings
- N° N4.60.FP02.00
- N° N4.60.FP03.00
- N° N4.60.FP04.00
- N° N4.60.FP05.00

3. TEST REPORTS:

- Models N4.60 and N4.60KC type tested at LA TESTE DE BUCH on 12 and 13th of December 2007 under the supervision of BV.
- The equipment complies with provisions of IMO Res. MSC.81(70), Part 1, paras. 6.10.2 to 6.10.6, and 6.14.6 to 6.14.8.

4. APPLICATION / LIMITATION:

4.1 - **Other materials and/or components:**

TECHNODRIVE type:

- TM345 reduction ratio 1.54/1, 2.00/1, 2.47/1

- **Injection pump**

Type Bosch PER4M mini.

- **Battery**

Type recommended: 50Ah / 815 A discharge capacity.

- **Cold starting device**

Electrically operated glow plugs.

- **Electric stop under inverting condition**

Gravity type.

4.2 - 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 by IMO MSC/Circ. 809 for fast rescue boats.

- 4.3 - These engines are suitable for use when cold starting at -15°C is required.
- 4.4 - The engines shall be equipped with the parts listed in the manufacturer's Parts Catalog exclusively.
- 4.5 - The engines will be delivered with the relevant documentation for their maintenance and their operation.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - This certificate 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 - The engine must be tested with all its final equipment accessories.

5.3 - Each engine intended to be fitted onboard a ship registered to a National Register adhering to the Directive shall be delivered with a Declaration or Certificate of Conformity.

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

6. MARKING OF PRODUCT:

6.1 - Type and serial number.

6.2 - Rated power and speed.

6.3 - Date of workshop trial.

6.4 - Date of end of Manufacture.

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

☒ 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 the Certificate 20539/A0 EC issued on 27 Jun 2008 by the Society.

*** END OF CERTIFICATE ***