



Marine & Offshore  
Division

Certificate number: 21662/B1 EC

File number: LSA 22689/5

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](http://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 2012/32/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 N4.85 / N4.85 KC N4.100HE / N4.100 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.320(89) and MSC.323(89)

IMO Res. MSC Circ.980

*This certificate is issued on behalf of the french maritime administration 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: 17 Oct 2019**

For BUREAU VERITAS Notified Body 0062,

At BV BORDEAUX, on 14 Nov 2014,

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 & Offshore Division available on the internet site [www.veristar.com](http://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 **N4.85 / N4.85 KC N4.100HE / N4.100 KC**

#### **Main characteristics:**

- 4 cylinders in Line Engine base: KUBOTA, Japan (Bore x Stroke: 94 mm x 110 mm)
- Four stroke
- Water cooled (Heat exchanger or Keel cooling)

Crankshaft power / rotating speed:            62.5 kW at 2800 rpm (N4.85) 73.6kW at 2800 rpm (N4.100)

### 2. DOCUMENTS AND DRAWINGS:

#### **Drawings:**

- N° N4.85 ES01.01    Engine specifications
- N° N4.85 LS01.00    Lubricating system
- N° N4.85 FS01.00    Fuel system
- N° N4.85 FS02.00
- N° N4.85 FS03.00
- N° K 674 SLS C      Electrical wiring diagram
- N° N4.85 CS01.00    Cooling system
- N° N4.85 BS01.00    Breather system
- N° N4.85 EC01.00    Engine cut
- N° N4.85 CK01.00    Crankshaft
- N° N4.85 FP01.00    Injection pipes
- N° N4.85 FP02.00
- N° N4.85 FP03.00
- N° N4.85 FP04.00
- N° N4.85 FP05.00
- N° N4.85 SS01.00    Special starter

### 3. TEST REPORTS:

Models N4.85 & N4.85KC type tested at LA TESTE DE BUCH on 17 & 18th of March 2009 under the supervision of BV.  
Models N4.100 HE / N4.100 KC type tested at LA TESTE DE BUCH on 12th of March 2014 under the supervision of BV.

### 4. APPLICATION / LIMITATION:

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

- **Gear Box**

ZF25M reduction ratio 1.88/1, 2.27/1, 2.74/1  
ZF25MA reduction ratio 2.23/1, 2.74/1  
TM345 reduction ratio 1.54/1, 2.00/1, (2.47/1 : only N4.85)  
TM345A reduction ratio 1.54/1, 2.00/1, (2.47/1 : only N4.85)

- **Injection pump**

Bosch 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 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 - 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:

☒ 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 Type Approval Certificate n° 21662/B1 BV issued on 17/10/2014 by the Society.

**\*\*\* END OF CERTIFICATE \*\*\***