



**Marine & Offshore  
Division**

**Certificate number:** 43962/A0 EC

**File number:** LSA 22689/8

**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 2014/93/EU*

*This certificate is issued to*

**NANNI INDUSTRIES SAS**

LA TESTE - FRANCE

*for the type of product*

**LIFEBOAT/RESCUE BOAT PROPULSION ENGINE**

N4.115 & N4.140

### 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: 15 Apr 2021**

**For BUREAU VERITAS Notified Body 0062,**

At BV BORDEAUX, on 15 Apr 2016,

Frédéric PALLARD



**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, types NANNI DIESEL N4.115 & N4.140

#### **Main characteristics:**

- 4 cylinders in Line Engine base: **KUBOTA V3800DITI-NANNI** (Bore x Stroke: 100 mm x 120 mm)
- Four stroke
- Fresh Water cooled (with Sea Water/Fresh Water Heat exchanger or Keel Cooling)
- Compression ratio: 20:1
- Dry weight with reverse gear: 353 kg
- Crankshaft power / rotating speed: 84.6 kW @ 2600 rpm for N4.115 model  
99.3 kW @ 2600 rpm for N4.140 model

### 2. DOCUMENTS AND DRAWINGS:

#### **Drawings:**

N4.115 ES01.01	TECHNICAL SPECIFICATIONS
N4.115/N4.140 LS01.00	LUBRICATING SYSTEM
N4.115/N4.140 FS01.00 N4.115/N4.140 FS02.00 N4.115/N4.140 FS03.00	FUEL SYSTEM
K674 SLS D	ELECTRICAL SYSTEM
N4.115/N4.140 CS01.00 N4.115/N4.140 CS02.00	COOLING SYSTEM
N4.115/N4.140 BS01.00	BREATHER VALVE SYSTEM
N4.115/N4.140 EC01.00	ENGINE CUT DRAWING
N4.115/N4.140 CK01.00 Rev.1	CRANKSHAFT DRAWING
N4.115/N4.140 FP02.00 N4.115/N4.140 FP03.00 N4.115/N4.140 FP04.00 N4.115/N4.140 FP05.00	FUEL INJECTION PIPES DRAWINGS
970 313 180 index A dated 04/2006	User's Manual - General- English
N4.1154 N4.140	Operation Manual-Specific English
970 316 452060	Service Manual- English
13 January 2016	Testing report

### 3. TEST REPORTS:

- Models N4.115 serial number 2DL1420 tested at LA TESTE DE BUCH in NANNI's FACILITIES on 13 Jan 2016 under the supervision of BV. Engine equipped with gearbox ZF 45-1 ratio 1.51 serial number 20207170.
- The equipments comply with provisions of IMO Res. MSC.81(70), Part 1, paras. 6.10.2 to 6.10.6 & 6.14.6 to 6.14.8.

In particular have been performed :

- Cold start test at minus 15°C
- Engine out of water test
- Submerged engine test
- Engine inversion test

### 4. APPLICATION / LIMITATION:

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

- **Gear Box**  
Type ZF 45, Reduction ratios :1 : 1.00, 1.26, 1.51, 2.03, 2.20, 2.44 & 2.51
- **Injection pump**  
BOSCH MINI
- **Battery**  
Required battery capacity:  
136 Ah capacity / 815 A discharge capacity or equivalent
- **Cold starting device**  
Glow plug in combustion chamber
- **Electric stop under inverting condition**  
Gravity type switch.

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 4.7 Free-fall Lifeboats
- section 5.1 (Rescue boats)

and by IMO MSC/Circ. 809 for fast rescue boats.

Nota : these engines are not intended for totally enclosed Lifeboats as per section 4.6.

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:

☒ 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:**

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.

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