



MARINE DIVISION

Certificate number: 23394/A0 BV

File number: ACM 180/2503/03

Product code: 7152H

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

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

VICTOR MARINE LTD.
West Thurrock - UNITED KINGDOM

for the type of product

ANTISPARKING AXIAL FANS

Portable Gas Freeing Fan - VP 650A - Lite

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units
- IBC Code

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 02 Dec 2015

For BUREAU VERITAS,

At BV LONDON, on 02 Dec 2010,

Spencer Yule



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. 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

Portable Axial flow gas freeing fan VP 650A - Lite

1.1 Technical specification

Type	VP 650A - Lite
Drive media	Air
Max. operating pressure (bar)	7.0
Temperature range (°C)	-10/70
Max. air flow (m ³ /hr)	6,750
Max. supply air flow(cfm)	105
Min. supply hose (inch)	3/4"
Standard deck flange (mm)	ID Ø 318
Gross weight (kg)	17.5

1.2 Material specification

Inner Body	Stainless steel
Outer Body	Stainless steel 316
Impeller/Hub assembly	Blade: anti-static glass reinforced polyamide Hub: silumin aluminium alloy casting
Deflector/stator	Stainless steel 316

2. DOCUMENTS AND DRAWINGS

- Drawings VP650-001-2 Sheets 2, 3 & 4 - General Arrangement
- Operating and maintenance manual VP 650A - Lite Issue A August 2010

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

- Tests carried out: Air flow tests and noise assessment. The fan was tested in supply mode (blowing).
- Test report N° 54580/1 dated 15/09/2010 issued by BSRIA Laboratory, Bracknell, witnessed by the Society

4. APPLICATION / LIMITATION

4.1 Axial flow portable gas freeing fan is approved for use as non-sparking fans for purging of explosive gas/air mixture from cargo tanks, cofferdams and other hazardous areas of oil/chemical tankers. Fan is capable of operation in supply mode (blowing).

4.2 Fan is to be suitably earthed to the hull in order to prevent electrostatic charges during operation.

4.3 The installation on board is to be carried out in compliance with manufacturer's instructions and in accordance with the provisions of Bureau Veritas Rules and Regulations stated on the front page of this certificate.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be manufactured, examined and tested by the manufacturer in accordance with the approved type described in this certificate and Bureau Veritas Rules and Regulations stated on the front page of this certificate.

5.2 Production sites are to be recognized by Bureau Veritas as per NR 320 for HBV products. To this end, the manufacturer has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 The manufacturer has declared to Bureau Veritas that the products detailed in this certificate are manufactured at the production site stated on the front page of this certificate.

5.4 Bureau Veritas certificate is not required for the product to be fitted on board units to be classed with Bureau Veritas.

6. MARKING OF PRODUCT

The product is to be at least marked with:

- Manufacturer's name or logo
- Type designation and size
- Capacity

7. OTHERS

This approval is given on the understanding that the manufacturer will accept full responsibility for informing shipbuilders or their sub-contractors of the proper methods of fitting and general maintenance of the product and of the conditions of this approval.

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