



Marine &amp; Offshore

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This certificate is not valid when presented without the full attached schedule  
composed of 7 sections  
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Notified Body 2690 - MARINE EQUIPMENT DIRECTIVE 2014/90/EU

## EC TYPE EXAMINATION CERTIFICATE

as per Module B of Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations and Commission Implementing Regulation (EU) 2020/1170 of 16 July 2020

This certificate is issued to:

**LINGJACK ENGINEERING WORKS PTE LTD**

Singapore - SINGAPORE

for the type of product

**PORTABLE FIRE EXTINGUISHERS**

COMBAT/LINGJACK 9L WATER BASED FIRE EXTINGUISHER TYPES C-9FCE AND C-9WCEA

### Requirements:

SOLAS 74 convention as amended, Regulations II-2/4, II-2/10, II-2/18, II-2/19, II-2/20, X/3

IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 7

IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 7

IMO Res. MSC.98(73) -(FSS Code)- as amended by MSC.206(81), MSC.217(82), MSC.292(87), MSC.311(88), MSC.327(90), MSC.339(91) and MSC.457(101), 4

IMO Res. MSC.391(95) - (IGF Code)- as amended, 11

IMO Res. A.951(23), IMO MSC/Circ.1239 incl. Corr.1 and IMO MSC/Circ.1275

EN 3-7:2004 incl. /A.1:2007, EN 3-8:2006 incl. /AC:2007, EN 3-9:2006 incl. /AC:2007 and EN 3-10:2009

This certificate is issued on behalf of the French Maritime Authorities to attest that Bureau Veritas Marine & Offshore did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations.


**This certificate will expire on: 09 Jun 2026**

**For Bureau Veritas Marine & Offshore Notified Body 2690,**

At BV SINGAPORE, on 18 Jun 2021,

Shivananda Upadhyaya



**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 II 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 Marine & Offshore. 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 Marine & Offshore 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 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 Marine & Offshore 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:**

#### **COMBAT/LINGJACK 9L WATER BASED FIRE EXTINGUISHER TYPES C-9FCE AND C-9WCEA**

<b>Type</b>	<b>C-9FCE</b>	<b>C-9WCEA</b>
Water	84% of total volume	85% of total volume
Additive	1% of total volume of Orchidee "SC-6" 15% of total volume of Orchidee "Inilam A"	15% of total volume of Orchidee "Inilam A"
Temperature Range of Use	+5 to +60 °C	+5 to +60 °C
Discharge Time	33 s	70 s
Propelling Gas	CO <sub>2</sub> ; 75 g	CO <sub>2</sub> ; 55g
Total Weight	14.5 kg	14.5 kg
Pressure at maximum operating temperature	17.5 bar	16.5 bar
Test Pressure (cylinder)	27 bar	27 bar
Diameter	181 mm	181 mm
Overall Height	600 mm	600 mm
Hose Length	515 mm	496 mm
Fire Class	34A/233B	21A

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

Cylinder	Steel
Operating Valve	Copper Zinc alloy
Discharge tube	Aluminium
Siphon Tube	UPVC Plastic
Hose	Black braided PVC
Nozzle	Black PP Plastic
Hook Bracket	Stainless steel

### **2. DOCUMENTS AND DRAWINGS:**

#### **2.1 - Design Drawings:**

<b>Type</b>	<b>C-9FCE</b>	<b>C-9WCEA</b>
ASSEMBLY DRAWING	20801708 Issue A dated 10/02/2009	20801709 Issue A dated 10/02/2009
VALVE ASSEMBLY	03000700 Issue A dated 10/02/2009	03000700 Issue A dated 10/02/2009
CYLINDER	03098700 Issue A dated 10/02/2009	03098700 Issue A dated 10/02/2009
CO <sub>2</sub> CARTRIDGE	03002100 Issue A dated 13/06/2013	03002000 Issue A dated 02/01/2018
SIPHON TUBE	03032900 Issue A dated 10/02/2009	03032900 Issue A dated 10/02/2009
DISCHARGE TUBE	03039216 Issue A dated 10/02/2009	03039216 Issue A dated 10/02/2009
HOSE + NOZZLE	03006801 dated 10 February 2008	03002901 dated 10 February 2008
HOOK BRACKET	03021702 Issue A dated 10/02/2009	03021702 Issue A dated 10/02/2009

#### **2.2 - Installation, Operation and Maintenance Manual:**

As per Manufacturer's document n°LJS-IOM-102 Rev G dated 06/04/2021.

#### **2.3 - Safety datasheets for the extinguishing media:**

- MSDS "Orchidee SC-6" dated 05/07/2020 from Orchidee Europe BVBA
- MSDS "Orchidee Inilam A" dated 13/05/2019 from Orchidee Europe BVBA

### **3. TEST REPORTS:**

#### **3.1 - C-9FCE:**

Test report as per EN 3-7:2004 incl. /A.1:2007 and EN 3-8:2006 incl. /AC:2007 n°252929 dated 23/06/2009 from BRE Global, UK.

Test report as per EN 1964-1:1999 (on CO<sub>2</sub> cartridge) n°P-PRC-20-07-601539-655 dated 17/07/2020 from TÜV SÜD Industrie Service GmbH, Germany.

**3.2 - C-9WCEA:**

Test report as per EN 3-7:2004 incl. /A.1:2007 and EN 3-8:2006 incl. /AC:2007 n°252930 dated 23/06/2009 from BRE Global, UK.

Test report as per EN 1964-1:1999 (on CO2 cartridge) n°P-PRC-19-09-601539-937 dated 24/09/2019 from TÜV SÜD Industrie Service GmbH, Germany.

**3.3 - C-9FCE & C-9WCEA:**

Conformity to EN 3-7:2004 incl. /A.1:2007 for internal corrosion: test report n°25T0000394/8/GCP dated 10/07/2001 from PSB Corporation, Singapore.

Test pressure of safety valve: test report n°HTCE13002 dated 08/08/2013 from YUYAO HAITONG FIRE FIGHTING EQUIPMENT CO., LTD, China.

**4. APPLICATION / LIMITATION:**

4.1 - Manufacturer's instruction for maintenance and recharging the extinguishers should be kept on board.

4.2 - The extinguishers are to be installed according to manufacturer's instructions.

4.3 - The extinguishers are not suitable for use on live electrical equipment .

4.4 - Due to the type of extinguishers covered by this certificate (i.e. extinguisher with cartridge), the standard EN 3-9:2006 incl. AC:2007 quoted in the requirements in front page is not applicable.

**5. PRODUCTION SURVEY REQUIREMENTS:**

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 module E Product Quality Assurance or module F Product Verification of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

**6. MARKING OF PRODUCT:**

As per IMO Resolution A.951 (23), paragraph 8 and the provisions of the Directive:

1 - Model designation

2 - Manufacturer's name and address

3 - Type of fire for which the extinguisher is suitable, i.e.

34A/233B for C-9FCE and 21A for C-9WCEA

Not suitable for use on live equipment

4 - Type and quantity of extinguishing medium

5 - Propelling gas: CO2

6 - Instruction for use and recharge (it is recommended that operating instructions be given in pictorial form, in addition to explanatory text in language understood by the likely user)

7 - Year of manufacture

8 - Temperature range over which the extinguisher will operate satisfactorily

9 - Test pressure, i.e.: 27 bar

10 - Reference is made to MED 2014/90/EU chapter 2.

In particular Article 10.3 specifies that the wheelmark shall be followed by the identification number of the Notified Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

**7. OTHERS:**

7.1 - It is **LINGJACK ENGINEERING WORKS PTE LTD**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate is the renewal of the EC Type Examination Certificate N°0832-MED-1013 issued on 20/05/2015 by BRE Global Ltd. It supersedes the EC Type Examination Certificate N°65252/A0 MED issued on 09/06/2021 by the Society.

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