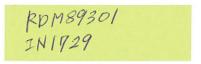


Document reference: NOx/2019/2306MC



ENGINE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended by resolution MEPC 176 (58) in 2008 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified of the Protocol of 1978 related thereto (hereinafter referred to as "the Convention")

under the authority of the Government of

IRELAND

by BUREAU VERITAS

Engine Manufacturer	Model number	Serial number	Test Cycle(s) (performed on parent engine)	/ 	Engine Approval number
YANMAR Co., Ltd.	6AYL-WET	5110	D2	438kW x 1500 rpm	MOT331/35/11NOx

This is to certify:

- 1. That the above-mentioned marine diesel engine has been surveyed for pre-certification in accordance with the requirements of the revised Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines (2008) made mandatory by Annex VI of the Convention; and
- 2. That the pre-certification survey shows that the engine, its components, adjustable features, and Technical File, prior to the engine's installation and/or service on board a ship, fully comply with the applicable regulation 13 of Annex VI of the Convention.

This Certificate is valid for the life of the engine subject to surveys in accordance with regulation 5 of Annex VI of the Convention, installed in ships under the authority of this Government.

At PARIS - LA DEFENSEon 6 June 2019

(Place of issue of certificate)

(Date of issue)



By order of the Secretary, O. CARTIER



Document reference: NOx/2019/2306MC

Supplement to Engine International Air Pollution Prevention Certificate (EIAPP Certificate)

RECORD OF CONSTRUCTION, TECHNICAL FILE AND MEANS OF VERIFICATION

Notes: This Record and its attachments shall be permanently attached to the EIAPP Certificate. The 1. EIAPP Certificate shall accompany the engine throughout its life and shall be available on board the ship at all times. 2. If the language of the original Record is neither English nor French, the text shall include a translation into one of these languages. 3. Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the convention and the requirements for an engine's Technical File and means of verifications refer to mandatory requirements from the Revised NO_x Technical Code (2008). 1. Particulars of the engine 1.1 Name and address of manufacturer: YANMAR Co., Ltd., Amagasaki plant, 1-1, 1-Chome, Higashi-Dori, Nagasu, Amagasaki, Hyogo, Japan Place of engine build: Tsukaguchi Plant, Amagashi, Hyogo, Japan 1.2 Date of engine build: March 2019 1.3 1.4 Place of pre-certification survey: as above 1.5 Date of pre-certification survey: 29 amrch 2019 1.6 Engine type and model number: YANMAR 6AYL-WET Engine serial number: 5110 1.7 If applicable, the engine is a parent engine or a member engine of the following engine family or 1.8 engine group 6AYLW15 certified by Bureau Veritas as per Reference N° NOx/2012/0596P 1.9 Individual Engine or Engine Family/ Engine group details: Approval reference: MOT331/35/11NOx 1.9.1 1.9.2 Rated Power (kW) and rated speed (rpm): 438 kW x 1500 rpm (performed on parent engine) Test cycle(s): D2 1.9.3 Parent engine(s) test fuel oil specification: not applicable 1.9.4 Applicable NOx emission limit (g/kWh), regulation 13.4 8.18 1.9.5

Parent Engine(s) emission value (g/kWh): 7.4 (measured on parent engine)

1.9.6

2 Particulars of the Technical File

The Technical File, as required by chapter 2 of the NOx Technical Code, is an essential part of the EIAPP Certificate and must always accompany an engine throughout its life and always be available on board a ship

- Technical File identification/approval number : G2-48649-1820 / MOT331/35/11NOx 2.1
- Technical File approval date: 06 june 2019 2.2

Specifications for the On-board NO_x Verification Procedures for the Engine Parameter Survey 3

The specifications for the on-board NOx verification procedures, as required by chapter 6 of the NOx Technical Code, is an essential part of the EIAPP Certificate through its life and always be available on board a ship.

- Engine Parameter check method: 3.1
 - 3.1.1 Identification / approval number: G2-48649-1850 / MOT331/35/11NOx
 - 3.1.2 Approval date: 06 june 2019
- 3.2 Direct Measurement and Monitoring method:
 - Identification / approval number : not applicable 3.2.1
 - Approval date: not applicable 3.2.2

Alternatively the Simplified Measurement method in accordance with 6.3 of the NOx Technical Code may be utilized.

6 June 2019 Issued at PARIS - LA DEFENSE on (Place of issue of certificate) (Date of issue)



By order of the Secretary, O. CARTIER