

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 by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention")

under the authority of the Government of

THE KINGDOM OF DENMARK

by DNV GL

PARTICULARS OF THE ENGINE:

Engine manufacturer:	Mitsubishi Turbocharger and Engine Europe B.V.
Model number:	S6A3-MPTAW
Serial number:	37571
Test cycle(s):	E2
Rated power [kW] and speed [rpm]:	221 @ 1530
Engine approval number:	EIAPP-F-001444-0023

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 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.

Issued at Hamburg, 30th March, 2017



Stine Mundal
Head of Section Environmental Certification

i. A. Gundersen

SUPPLEMENT TO ENGINE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

RECORD OF CONSTRUCTION, TECHNICAL FILE, AND MEANS OF VERIFICATION

1 Particulars of the engine

- | | | | |
|-------|--|---|---|
| 1.1 | Name and address of manufacturer | Mitsubishi Turbocharger and Engine Europe B.V.
Damsluisweg 2
Almere, Netherlands | |
| 1.2 | Place of engine build | Almere, Netherlands | |
| 1.3 | Date of engine build | 2016 | |
| 1.4 | Place of pre-certification survey | Almere, Netherlands | |
| 1.5 | Date of pre-certification survey | 2016 | |
| 1.6 | Engine type and model number | S6A3-MPTAW | |
| 1.7 | Engine serial number | 37571 | |
| 1.8 | If applicable, the engine is a parent engine
of the following engine family | <input type="checkbox"/> or a member engine
<input checked="" type="checkbox"/> engine group | <input checked="" type="checkbox"/>
<input type="checkbox"/> |
| | As approved with approval no. | 58C
EIAPP-F-1444 | |
| 1.9 | Individual engine or engine family / engine group details: | | |
| 1.9.1 | Approval reference | EIAPP-F-001444-0023 | |
| 1.9.2 | Rated power (kW) and rated speed (rpm) values or ranges | 221 kW at 1530 rpm | |
| 1.9.3 | Test cycle(s) | E2 | |
| 1.9.4 | Parent engine(s) test fuel oil specification | ISO-F-DMX | |
| 1.9.5 | Applicable NOx emission limit (g/kWh), regulation 13.3, 13.4 | 10.0, 7.8 | |
| 1.9.6 | Parent engine(s) emission value (g/kWh) | 5.9, 5.9 | |

2 Particulars of the technical file

The technical file, as required by chapter 2 of the NOx Technical Code 2008, 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.

- | | | |
|-----|---|---------------------|
| 2.1 | Technical file identification/approval number | EIAPP-F-001444-0023 |
| 2.2 | Technical file approval date | 2017-03-30 |

3 Specifications for the onboard NOx verification procedures

The specifications for the on board NOx verification procedures, as required by chapter 6 of the NOx Technical Code 2008, are an essential part of the EIAPP Certificate and must always accompany an engine through its life and always be available on board a ship.

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|-------|---|---------------------|
| 3.1 | Engine parameter check method: | |
| 3.1.1 | Identification/approval number | EIAPP-F-001444-0023 |
| 3.1.2 | Approval date | 2017-03-30 |
| 3.2 | Direct measurement and monitoring method: | |
| 3.2.1 | Identification/approval number | - |
| 3.2.2 | Approval date | - |

Alternatively the simplified measurement method in accordance with 6.3 of the NOx Technical Code 2008 may be utilized.

Issued at Hamburg, 30th March, 2017



Stine Mundal

Head of Section Environmental Certification

I. A. G. G. G.

Notes:

- 1 This Record and its attachments shall be permanently attached to the EIAPP Certificate. The EIAPP Certificate shall accompany the engine throughout its life and shall be available on board the ship at all times.
- 2 The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.
- 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 NOx Technical Code 2008.