TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000H3

This is to certify:

That the Diesel Engine

with type designation(s)
L27/38

Issued to
MAN Diesel & Turbo, branch of MAN Diesel & Turbo SE, Germany
Copenhagen SV, Denmark

is found to comply with
DNV GL Rules for classification, Ships - DNVGL-RU-SHIP-Pt4 Ch3 Sec1, Reciprocating Internal Combustion Engines

Application :

mechanical propulsion / auxiliary

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **4th April, 2022**.
Issued at **Høvik** on **5th April, 2017**
DNV GL local station: **Copenhagen** for **DNV GL**

Approval Engineer: **Amir Dzaferi**

Oddvar Deinboll
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: **262.1-001049-10**
Certificate No: **TAM00000H3**

Product description

four stroke, in-line engine, non-reversible, trunk-piston, with supercharging, with charge air cooling, direct injection, injection operation by cams, liquid fuel

Cylinder bore :	270
Piston stroke :	380
No. of cylinders :	5, 6, 7, 8, 9

Application/Limitation

Rated power [kW/cyl.]	350	350	365
Rated speed [rpm]	720	750	800
Mean effective pressure [bar]	26.8	25.72	25.15
Max. firing pressure [bar]	210	210	210

Tests carried out

Test report titel	Type Test for L27/38
Place of test	Augsburg
Date of test	1999-01-25 until 1999-01-27
Test engine:	
Model	8L 27/38
Serial no.	20000
No. of cylinders	8
Power [kW/cyl.]	340
Speed [rpm]	800

Marking of product

The product to be marked with manufacturer's name or trademark and type number identification.

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

In cases where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore, Periodical Assessment shall be carried out randomly at these companies.

Other Conditions

- Foundation arrangement to be submitted for each installation according to the Rules Pt.4 Ch.3 Sec.1 [1.4] – Documentation of arrangement.
- Torsional vibration calculations to be submitted for each installation according to the Rules Pt.4 Ch.2 Sec.2 – Torsional Vibration.
- Signboards according to the Rules Pt.4 Ch.3 Sec.1 [2.3.6] – Warning Notice.
- Flexible hoses to be Type Approved by DNV GL.
- Engine safety, control and monitoring systems, including sensors and actuators are not covered by this type approval certificate. Documentation for engine safety, control including speed governing and monitoring systems shall be submitted for approval according to the Rules Pt.4 Ch.9 Sec.1 Table 5 and/or as listed in relevant type approval certificates.
- Electric cables and installation of this is not covered by this approval and must be verified to comply with the requirement of the Rules Pt.4 Ch.8 - Electrical Installation.
- The approval does not include driven member.

END OF CERTIFICATE