TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000DH

This is to certify:

That the Diesel Engine

with type designation(s)
D2676LE

Issued to
MAN Truck & Bus AG
Nürnberg, Germany

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

Application :

propulsion, multi engine plant

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

This Certificate is valid until **26th January, 2022**.

Issued at **Hamburg** on **27th January, 2017**
DNV GL local station: **Augsburg** for **DNV GL**

Approval Engineer: **Ralph Michael**

Frank Lutz
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: **262.1-021547-1**
Certificate No: **TAM00000DH**

Product description

four stroke, in-line engine, non-reversible, trunk-piston, with supercharging, with charge air cooling, constant-pressure charging system, direct injection, injection operation electronically controlled, valve operation by cams, liquid fuel

Cylinder bore :	126
Piston stroke :	166
No. of cylinders :	6

Additional place of production

not applicable

Application/Limitation

Rated power [kW/cyl.]	89.5	79.67	63.83
Rated speed [rpm]	2300	2100	1800
Mean effective pressure [bar]	22.6	22	20.4
Max. firing pressure [bar]	180	170	160
Definition	Light duty	Medium duty	Heavy duty

Type Approval documentation

Tests carried out

Documentation:

Test report titel	Type test run Engine D2676LE443
Place of test	Nürnberg, Test bed 20
Date of test	2016-04-18 until 2016-04-22

Test engine:

Model	D2676LE443
Serial no.	21241752834171
No. of cylinders	6
Power [kW/cyl.]	89.5
Speed [rpm]	2300

Marking of product

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

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.
The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval certificate was issued.
In case 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

Engine safety, control and monitoring systems, including sensors, cables 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 DNV GL Rule Pt.4 Ch.9 Sec.1
All connections of pipes carrying lubrication oil or fuel oil have to be provide with re-assembly screening connections in piping P > 1.8 bar according to DNV GL Rule Pt.4 Ch.3 Sec.1/ Item 2-2.6

END OF CERTIFICATE