DNV·GL

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM000014R

This is to certify:

That the Diesel Engine

with type designation(s)
G95ME-C10

Issued to
MAN Energy Solutions, branch of MAN Energy Solutions 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 :

propulsion

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **13th November, 2024**.
Issued at **Høvik** on **14th November, 2019**
DNV GL local station: **Copenhagen** for **DNV GL**

Approval Engineer: **Geir Olav Moen**

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: **262.1-018349-7**
Certificate No: **TAM000014R**

Product description
two stroke, in-line engine, reversible, crosshead, with supercharging, with charge air cooling, constant-pressure charging system, direct injection, injection operation electronically controlled, valve operation electronically controlled, liquid fuel

Cylinder bore [mm]	950
Piston stroke [mm]	3460
No. of cylinders	5, 6, 7, 8, 9, 10, 11, 12

Application/Limitation

Rated power [kW/cyl.]	5489
Rated speed [rpm]	77.5
Mean effective pressure [bar]	17.3
Max. firing pressure [bar]	200
Definition	Mk 10.5

Type Approval documentation

Tests carried out

Documentation:	
Test report titel	Results of the Type Approval Test MAN B&W 11G95ME-C10.5
Place of test	HSD Engine, Changwon, Korea
Date of test	2019-09-09 until 2019-09-11
Test engine:	
Model	G95ME-C10.5, De-Rated
Serial no.	DML0106279
No. of cylinders	11
Power [kW/cyl.]	5489
Speed [rpm]	77.5

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 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 these are not covered by this approval and must be verified to comply with the requirement of the Rules Pt.4 Ch.8 - Electrical Installation.

END OF CERTIFICATE