# TYPE APPROVAL CERTIFICATE

Certificate No:
**TAM00000HB**

## This is to certify:

**That the Diesel Engine**

with type designation(s)
**(L,V)250(A,B)**

Issued to
**GE Transportation Parts, LLC**
**PA Erie, United States**

is found to comply with
**DNV GL Rules for Classification: "Ships", "High Speed and Light Craft"**

## Application :

propulsion, multi engine plant / auxiliary

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

This Certificate is valid until **20th April, 2022**.

Issued at **Hamburg** on **21st April, 2017**
DNV GL local station: **New York** for **DNV GL**

Approval Engineer: **Jan Sell**

**Burkhard Lilienthal**
**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: **262.1-003736-9**
Certificate No: **TAM00000HB**

## Product description

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

| | |
|---|---|
| Cylinder bore : | 250 |
| Piston stroke : | 320 |
| No. of cylinders : | 6, 8, 12, 16 |

## Additional place of production

GE Transportation Parts, LLC, Erie, United States
General Electric Company GE Marine & Stationary Power GE Transportation Systems, Grove City, United States

## Application/Limitation

| | | | | |
|---|---|---|---|---|
| Rated power [kW/cyl.] | 291 | 291 | 264.84 | 264.82 |
| Rated speed [rpm] | 1050 | 1050 | 1050 | 1050 |
| Mean effective pressure [bar] | 21.2 | 21.2 | 19.3 | 19.3 |
| Max. firing pressure [bar] | 220 | 220 | 220 | 220 |
| Definition | 6L250( A,B) | 8L250( A,B) | 12V250 (A,B) | 16V250 (A,B) |

## Type Approval documentation

## Tests carried out

Documentation:

| | |
|---|---|
| Test report titel | report no #2429 |
| Place of test | Grove City |
| Date of test | 2007-10-23 until 2007-10-29 |

Test engine:

| | |
|---|---|
| Model | 16V250MDA1 |
| Serial no. | G411070001 |
| No. of cylinders | 16 |
| Power [kW/cyl.] | 265 |
| Speed [rpm] | 1050 |

## 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

1. For installation, operation, and service of the engine, the relevant instructions of the engine manufacturer are to be observed.
2. Flexible hose assemblies shall be type approved by DNV GL; DNV GL Rules Pt.4 Ch.6 Sec.9 [4].
3. Connections of pipes carrying lube oil or fuel oil shall be properly screened to prevent oil spray in case of leakage; DNV GL Rules Pt.4 Ch.3 Sec.1 [2.6.2].
4. Signboards shall be fitted according to the DNV GL Rules Pt.4 Ch.3 Sec.1 [2.3.6].

5. Engine safety, control and monitoring systems, including sensors and actuators, are not covered by this certificate. Documentation for engine safety, control (including speed governing), and monitoring systems shall be submitted for approval according to DNV GL Rules Pt.4 Ch.9 Sec.1 Table 5 and/or as listed in relevant Type Approval certificates.
6. Electric cables and cabling are not covered by this certificate and shall be verified to comply with DNV GL Rules Pt.4 Ch.8.
7. Individual product certification is required for each engine; DNV GL Rules Pt.4 Ch.3 Sec.1 [1.1.14].
8. Turbocharger GE 7S-140(6,8) is approved as part of the engine and is covered by this certificate. Drawings approved by MTPNO373/WILLIK/262.1-003736-J-31, dated 2008-04-17
9. This renewal of Type Approval for (L,V)250(A,B) is based on previous certificate M-12557.

END OF CERTIFICATE