Certificate no.:
TAM00001E9

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Diesel Engine / Dual-Fuel Engine

with type designation(s)
L35/44CD, L35/44DF-CD

issued to
Everllence SE
Augsburg, **Germany**

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.3 Sec.1 Reciprocating internal combustion engines

Application:

Constant speed generator drive (multi engine electric propulsion, auxiliary electric power generation)

Issued at **Hamburg** on **2025-12-04**
This Certificate is valid until **2030-12-03**.
DNV local unit: **Augsburg**

for **DNV**

Approval Engineer: **Jan Sell**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

4-stroke, trunk piston, in-line engine, non-reversible, with supercharging, with charge air cooling, constant pressure charging system, valve operation by cams

35/44DF-CD: dual fuel
Main liquid fuel system: HFO, DMA, DMB, DMC, FAME, direct injection, injection operation mechanically controlled
Gaseous fuel system: Natural gas, port injection, gas supply valve operation electronically controlled
Ignition system: Pilot fuel oil, DMA, direct injection, injection operation electronically controlled, common-rail

35/44CD: single fuel
liquid fuel, HFO, DMA, DMB, DMC, FAME, direct injection, injection operation mechanically controlled

Cylinder bore	350 mm
Piston stroke	440 mm
No. of cylinders	6, 7, 8, 9

Following sub-systems are generally accepted but shall be covered by separate approval:
- Engine safety, control and monitoring system Everllence SaCoS5000

Following sub-systems are approved as part of the engine design and covered by this certificate:
- Fuel gas expansion joint OD282x272L acc. to drawing 11.23412-0071, manufactured by Yulwon

Application/Limitation

Rated power [kW/cyl.]	560	560
Rated speed [rpm]	720	750
Mean effective power [bar]	22.0	21.2
Max. firing pressure [bar]	215	215
Rating definition	cont.	cont.

Type Approval documentation

DNV reference: 262.1-041777-1

Tests carried out

2025-04-07 - 2025-04-11, initial Type Test of Everllence 6L35/44DF-CD, 560 kW/cyl. at 720 rpm / 750 rpm, Serial No. 1200760, including Integration test of engine safety, control and monitoring system Everllence SaCoSone, at STX Engine Co., Ltd., Changwon-si, Republic of Korea,
2025-11-19 – 2025-11-20, Integration test of engine safety, control and monitoring system Everllence SaCoS5000 on 6L45/44DF-CD, Serial No. 1200760 at STX Engine Co., Ltd., Changwon-si, Republic of Korea,

Marking of product

The product (engine) is to be marked with the manufacturer's name or trademark, the engine type and model designation, the engine serial no. and the output rating (kW at rpm).

Periodical assessment

Meetings on regularly basis and at least every second year with the type approval applicant (hereof: the engine designer) shall be arranged with the objective to verify that the conditions for the type approval are not altered since the type approval certificate was issued, and to keep DNV updated with regard to:
- The latest development status and design as covered by the type approval certificate.
- Damages and failures of products certified by DNV leading to breakdown or other malfunctions in service. The causes and reasons for the failure and results from investigations are to be made available to DNV upon request. Failure to inform DNV may lead to suspension of this Type Approval certificate.

DNV shall verify that the type approval applicant has a quality control system for consistent production at their licensees/subcontractors.

Other Conditions

1. 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 Rules Ships Pt.4 Ch.9 Sec.1 Table 5 and/or as listed in relevant Type Approval certificates.
2. Pilot fuel oil supply to the engine shall be arranged with the same redundancy and availability as main diesel oil supply.

END OF CERTIFICATE