

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000U2**This is to certify:****That the Diesel Engine**with type designation
EY33(L)W

Issued to

Yanmar Co., Ltd.
Amagasaki, Japan

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

This Certificate is valid until **12th March, 2023**.Issued at **Høvik** on **13th March, 2018**DNV GL local station: **Kobe**for **DNV GL**Approval Engineer: **Tage Olav Alexander Strøm**

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: **262.1-026875-1**
Certificate No: **TAM00000U2**

Product description

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

Cylinder bore :	330	EY33LW	- Auxiliary engine
Piston stroke :	440	EY33W	- Propulsion engine
No. of cylinders :	6,8		

Place of production

Yanmar Co., Ltd., Amagasaki, Japan

Application/Limitation

Rated power [kW/cyl.]	560	600	600
Rated speed [rpm]	750	750	720
Mean effective pressure [bar]	23.8	25.5	26.6
Max. firing pressure [bar]	220	220	220
Definition	EY33W	EY33LW	EY33LW

Type Approval documentation

Tests carried out

Test report title	Type Approval Test - Test Record of Engine
Place of test	Amagasaki, Japan
Date of test	2017-09-05 until 2017-09-08

Test engine:	
Model	EY33(L)W
Serial no.	FYC0101
No. of cylinders	6
Power [kW/cyl.]	560
Speed [rpm]	750

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 after the issue date of the Type Approval Certificate. 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

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.

END OF CERTIFICATE