

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000VU**This is to certify:****That the Diesel Engine**with type designations
DC(M)-32(e)(F)(L)

Issued to

Daihatsu Diesel Mfg. Co., Ltd. Moriyama Factory
Moriyama-city, Japan

is found to comply with

DNV GL Rules for classification, Ships - DNVGL-RU-SHIP-Pt4 Ch3 Sec1, Reciprocating Internal Combustion Engines**Application :**

Propulsion / auxiliary

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

This Certificate is valid until **30th June, 2023**.Issued at **Høvik** on **16th April, 2018**DNV GL local station: **KOBE**for **DNV GL**Approval Engineer: **Dag Harald Williksen**

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: **262.1-000145-7**
Certificate No: **TAM00000VU**

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 by cams, valve operation by cams, liquid fuel

Cylinder bore [mm]	320
Piston stroke [mm]	400
No. of cylinders	6 and 8 in-line

Application/Limitation

Rated power [kW/cyl.]	500	500
Rated speed [rpm]	720	750
Mean effective pressure [bar]	25.9	24.9
Max. firing pressure [bar]	187	187

Type Approval documentation

Tests carried out

Documentation:

Test report title	Test Records of the Diesel engine for type test
Place of test	Moriyama City, Japan
Date of test	2012-06-19 until 2012-06-20

Test engine:

Model	8DC(M)-32e
Serial no.	DCT832Z0001
No. of cylinders	8
Power [kW] @ Speed [rpm]	4000 @ 720

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.

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