

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Diesel Engine

with type designation(s)
5/6 DK(M)-26 (e)(F)(L)

Issued to

Daihatsu Diesel Mfg. Co., Ltd. Moriyama Factory
Moriyama Shiga Pref, Japan

is found to comply with
Det Norske Veritas' Rules for Classification of Ships

Application :

The approval is valid for propulsion and auxiliary duty.

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

Rating see page two of certificate

This Certificate is valid until **2017-06-30**.

Issued at **Høvik** on **2016-09-28**

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: **262.1-005844-8**
Certificate No: **TAM00000C4**

Product description

Four Stroke Diesel Engine

Cylinder bore: 260 mm
Piston stroke: 380 mm
No. of cylinders: 5 and 6 In-line

"-": Generator engine, eg 5DK-26
"M": Propulsion engine, eg 5DKM-26
"F": Propulsion engine with power takeoff to other equipment, eg 5DKM-26F
"L": Anticlockwise rotation, seen from flywheel side, eg 5DKM-26L
"e": Model complies with IMO Tier II requirements

Application/Limitation

The approval is valid for propulsion and auxiliary duty and based on the following main data:

	5DK(M)-26(e)(F)(L)	6DK(M)-26(e)(F)(L)
Mean indicated pressure, [bar]:	22,7/21,8	28,3/27,2
Max. cylinder pressure, [bar]*:	170 or 177	170 or 177
Rated cont.output, [kW]:	1280	1912
Corresponding to, [RPM]:	720/750	720/750

* Max cylinder pressure is depending on crankshaft material used.

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Tests carried out

Type approval test carried out 2006-02-14/15, engine type 6DK(M)-26, engine serial no DK626Z0214

Verification of surface temperatures and screening of pipe connections carried out 2008-06-13, engine serial no DK626Z0241

Performance test carried out 2010-01-13, engine type 6DKM26e.

Verification of surface temperatures carried out 2010-08-20, engine type 5dK_26, engine no DK526Z0376,

Marking of product

The product to be marked with manufacturer's name or trademark and type number identification.

Periodical assessment

For retention of the Type Approval, a DNV surveyor shall perform survey every second year and before expiry date of this certificate to verify that the conditions of the type approval is complied with.

Other conditions

Foundation arrangement to be submitted for each installation according to the Rules, Pt. Ch.3 Sec.1 A500 – Documentation of arrangement.

Torsional vibration calculations to be submitted for each installation according to the Rules Pt.4, Ch.3, Sec.1, G - Vibration.

Signboards according to the Rules Pt.4, Ch.3, Sec.1, C 406.
Flexible hoses for flammable fluids to be type approved by DNV.

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



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monitoring systems shall be submitted for approval according to Pt.4 Ch.9 Sec.1 Table C2 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 DNV Rules for Ships/ High, Speed Light Craft and Naval Surface Craft Pt.4 Ch.8 - Electrical Installation.

The approval does not include driven member.

END OF CERTIFICATE