

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000EZ

This is to certify:

That the Diesel Engine

with type designation
DI16M [070 series and later]

Issued to

Scania CV AB
Södertälje, Sweden

is found to comply with

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

Application :

Propulsion / Auxiliary / Emergency

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

This Certificate is valid until **9th February, 2022**.

Issued at **Høvik** on **10th February, 2017**

DNV GL local station: **Stockholm**

for **DNV GL**

Approval Engineer: **Tin Nguyen**

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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.

Product description

Four stroke, v-engine, non-reversible, trunk-piston, with supercharging, with charge air cooling, direct injection, valve operation by cams, liquid fuel

Cylinder bore : 130
Piston stroke : 154
No. of cylinders : 8

Application/Limitation

Rated power [kW/cyl.]	92	82.8	73.5	69
Rated speed [rpm]	2300	2300	2100	1800
Mean effective pressure [bar]	23.5	21.1	20.6	22.5
Max. firing pressure [bar]	197	186	181	173
Definition	Propulsion*	Propulsion	Propulsion	Propulsion

Rated power [kW/cyl.]	74.5	80	63.9	66.9
Rated speed [rpm]	1800	1800	1500	1500
Mean effective pressure [bar]	24.3	26.1	25.0	26.2
Max. firing pressure [bar]	185	185	169	169
Definition	Auxiliary/ Emergency	Auxiliary/ Emergency	Auxiliary/ Emergency	Auxiliary/ Emergency

*Not overloadable

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

Foundation arrangement to be submitted for each installation according to the Rules Pt.4 Ch.3 Sec.1 [1.4]
– Documentation of arrangement.

Torsional vibration calculations to be submitted for each installation according to the Rules Pt.4 Ch.2 Sec.2 – Torsional Vibration.

Signboards according to the Rules Pt.4 Ch.3 Sec.1 [2.3.6] – Warning Notice.

Flexible hoses to be Type Approved by DNV GL.



Job Id: **262.1-012713-4**
Certificate No: **TAM00000EZ**

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.

The approval does not include driven member.

END OF CERTIFICATE