

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM0000027**This is to certify:****That the Diesel Engine**with type designation
DI16 M XPI

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 :**

mechanical propulsion - multi engine plant

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

This Certificate is valid until **13th September, 2023**.Issued at **Høvik** on **14th September, 2018**DNV GL local station: **Stockholm**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.

Product description

Four stroke, v-engine, non-reversible, with supercharging, with charge air cooling, constant-pressure charging system, direct injection, injection operation electronically controlled, valve operation by cams, liquid fuel

Cylinder bore [mm]	130
Piston stroke [mm]	154
No. of cylinders	8

Place of production

Scania CV AB, Södertälje, Sweden

Application/Limitation

Rated power [kW/cyl.]	82.75	92	101.12	105.75
Rated speed [rpm]	2300	2300	2300	2300
Mean effective pressure [bar]	21	24	26	27
Max. firing pressure [bar]	186	198	211	220
Definition	IFN	Patrol Craft Long	Patrol Craft Long	Patrol Craft Short

Type Approval documentation

Tests carried out

Documentation:

Test report titel	Tpe test report DI16 M XPI engine type
Place of test	Södertälje, Sweden
Date of test	2018-04-25 until 2018-04-27

Test engine:

Model	DI16 076M
Serial no.	1141221
No. of cylinders	8
Power [kW/cyl.]	105.75
Speed [rpm]	2300

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

For retention of the type approval, a DNV GL surveyor shall perform an assessment after 2 years and after 3.5 years, both referring to the issue date of the type approval certificate to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

In cases 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.

END OF CERTIFICATE