



Certificate No. 02-003330/025328

TYPE APPROVAL CERTIFICATE

This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.

TYPE AND DESCRIPTION OF PRODUCT:

**DIESEL ENGINE,
type DI09 M**

MANUFACTURER:

**SCANIA CV AB
SE-151 87 Södertälje
Sweden**

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

CRS: Rules for the classification of ships, Part 9. - Machines.

FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.

APPROVAL IS VALID UNTIL: **2025-09-12**

Place and date: Split, 2021-07-23

Seal

Marinko Popović, dipl.ing.

NOTE: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.

DETAILED PRODUCT DESCRIPTION:

Number of cylinders	5
Cylinder arrangement	In line
Working cycle	4- stroke
Cylinder bore (mm)	130
Stroke (mm)	140
Kind of fuel	Liquid
Fuel injection system	Electronically controled, direct injection with unit injector
Valve operation	Cam control
Turbocharging system	Single-stage wih charge air cooling

APPLICATION / LIMITATIONS:

Application: Propulsion engine

Rated power (kW)	257	294
Rated speed (rpm)	1800	2100
Mean effective pressure (bar)	18,4	18,1
Max. firing pressure (bar)	160	177

Application: Auxiliary, genset engine

Rated power (kW)	269	323
Rated speed (rpm)	1500	1800
Mean effective pressure (bar)	23,1	23,2
Max. firing pressure (bar)	172	181

Power ratings (at the same rated speed) lower than those stated is accepted as long as they are within the values approved by engine designer.

TYPE APPROVAL DOCUMENTATION:

Approved by the Croatian Register of Shipping with letter No.(dated): 1998/TS/IA/023494 (2013-09-12)

MARKING OF PRODUCT:

- manufacturer's mark
- location and year of final fitting
- CRS mark

CONDITIONS FOR CERTIFICATION:

Signalization and protection related to the engine shall be subject to CRS approval in each particular case and will depend on service applied and the degree of automation of the engine plant.