



Certificate No. 02-004121/025904

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
C9.3

MANUFACTURER:

CATERPILLAR Inc.
3701 South Street
Lafayette, IN 47905-4856
USA

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

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: **2027-07-16**

Place and date: Split, 2023-06-29

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	6
Cylinder arrangement	In-line
Working cycle	4- stroke
Cylinder bore (mm)	115
Stroke (mm)	149
Kind of fuel	Liquid
Fuel system	Electronically controlled, direct injection type, common rail
Valve operation	Cam control
Turbocharging system	Single-stage with charge air cooling

APPLICATION / LIMITATIONS:

Application: Propulsion

Rated power (kW)	280	310	355
Rated speed (rpm)	1800	2100	2300
Mean effective pressure (bar)	20,1	19,0	19,9
Rating*	B	C	D

Application: Auxiliary and emergency

Rated power (kW)	218	270	275	325
Rated speed (rpm)	1500		1800	
Mean effective pressure (bar)	18,8	23,2	19,7	23,3

*Reference is made to Manufacturer marine rating classification.

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 letters No.(dated):

1427/TS/IA/023661	(2015-07-16)
2718/TSE/DL/024829	(2019-11-07)

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.