



Certificate No. 02-004036/025841

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 C12**

MANUFACTURER:

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

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: **2027-05-02**

Place and date: Split, 2023-05-02

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)	130
Stroke (mm)	150
Kind of fuel	Liquid
Fuel injection system	Electronically controled, direct injection with unit injector
Valve operation	Cam control
Turbocharging system	With turbocharging, with charge air cooling, constant pressure

APPLICATION / LIMITATIONS:

Application: Propulsion engine

Rated power (kW)	254	287	366	425	448	492
Rated speed (rpm)	1800	1800	2300	2300	2300	2300
Mean effective pressure (bar)	14,2	16,0	16,0	18,6	19,6	21,5
Max. firing pressure (bar)	138	151	151	167	180,05	180,05
Application / Rating*	A Unrestricted Continuous	B Heavy Duty	C Maximum Continuous	D Intermittent Duty	E High Performance	E High Performance

*Reference is made to Manufacturer marine rating classification.

Lower ratings than this 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):

852/TS/IA/023018 (2011-04-29)

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.