



Certificate No. 02-003315/025170

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
3500 HD

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: **2025-07-09**

Place and date: Split, 2021-07-09

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	12, 16
Cylinder arrangement	Vee (V-angle 60°)
Working cycle	4- stroke
Cylinder bore (mm)	170
Stroke (mm)	215
Kind of fuel	Liquid
Fuel system	Electronically controled, direct injection with unit injector
Valve operation	Cam control
Turbocharging system	Constant pressure, single-stage wih charge air cooling

APPLICATION / LIMITATIONS:

Application: Propulsion engine

Rated power (kW/cyl.)	175	187,5*	137,5	105,6
Rated speed (rpm)	1800	1800	1600	1200
Mean effective pressure (bar)	23,9	25,6	21,1	21,7

* Intermittent Rating. Reference is made to Manufacturer marine rating classification.

Application: Auxiliary

	12 Cylinders models		16 Cylinders models	
Rated power (kW/cyl.)	113,6	149,2	121,3	148,0
Rated speed (rpm)	1500	1800	1500	1800
Mean effective pressure (bar)	18,6	20,4	19,9	20,2

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):

023715 (2015-03-09)

2289/TS/IA/023830 (2015-11-30)

875/TSEv/KF/025170 (2021-07-09)

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.